



**OKLAHOMA**

STATE DEPARTMENT *of* EDUCATION

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STATE SUPERINTENDENT *of* PUBLIC INSTRUCTION

**Oklahoma Core Curriculum  
Tests  
(OCCT grades 3-8)  
2014–15 TECHNICAL REPORT**



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# TABLE OF CONTENTS

CHAPTER 1	OVERVIEW OF THE OKLAHOMA CORE CURRICULUM TESTS .....	1
1.1	PURPOSE OF THE OKLAHOMA CORE CURRICULUM TESTS.....	1
1.2	PURPOSE OF THIS REPORT .....	2
1.3	ORGANIZATION OF THIS REPORT .....	2
CHAPTER 2	CURRENT YEAR UPDATES.....	3
CHAPTER 3	TEST DESIGN AND DEVELOPMENT .....	4
3.1	TEST SPECIFICATIONS .....	4
3.1.1	CRITERION REFERENCE TEST .....	4
3.1.2	ITEM TYPES.....	4
3.1.3	DESCRIPTION OF TEST DESIGN .....	4
3.2	READING TEST SPECIFICATIONS.....	5
3.2.1	STANDARDS .....	5
3.2.2	ITEM TYPES.....	5
3.2.3	TEST DESIGN .....	5
3.2.4	BLUEPRINTS.....	6
3.2.5	DEPTH OF KNOWLEDGE (DOK) .....	7
3.2.6	READING PASSAGES.....	8
3.3	MATHEMATICS TEST SPECIFICATIONS.....	10
3.3.1	STANDARDS .....	10
3.3.2	ITEM TYPES.....	10
3.3.3	TEST DESIGN .....	11
3.3.4	BLUEPRINTS.....	11
3.3.5	DOK.....	12
3.4	SCIENCE TEST SPECIFICATIONS .....	13
3.4.1	STANDARDS .....	13
3.4.2	ITEM TYPES.....	14
3.4.3	TEST DESIGN .....	14
3.4.4	BLUEPRINTS.....	14
3.4.6	USE OF CALCULATORS AND REFERENCES SHEETS .....	17
3.5	SOCIAL STUDIES.....	18
3.5.1	STANDARDS AND OBJECTIVES.....	18
3.5.2	ITEM TYPES.....	18
3.5.3	TEST DESIGN .....	19
3.5.4	BLUEPRINTS.....	19
3.6	TEST DEVELOPMENT PROCESS .....	21
3.6.1	ITEM SELECTION AND OPERATIONAL TEST ASSEMBLY .....	21
3.6.2	OPERATIONAL TEST DRAFT REVIEW.....	22
3.6.3	ALTERNATIVE PRESENTATIONS .....	23

CHAPTER 4	TEST ADMINISTRATION .....	24
4.1	RESPONSIBILITY FOR ADMINISTRATION .....	24
4.2	ADMINISTRATION PROCEDURES.....	24
4.3	PARTICIPATION REQUIREMENTS AND DOCUMENTATION .....	24
4.3.1	STUDENTS WITH DISABILITIES.....	25
4.3.2	STUDENTS WITH LIMITED ENGLISH PROFICIENCY.....	25
4.4	ADMINISTRATOR TRAINING .....	25
4.5	DOCUMENTATION OF ACCOMMODATIONS .....	25
4.6	TEST SECURITY .....	26
4.7	TEST AND ADMINISTRATION IRREGULARITIES.....	27
4.8	TEST ADMINISTRATION WINDOW.....	27
4.9	SERVICE CENTER .....	28
CHAPTER 5	SCORING .....	29
5.1	MACHINE-SCORED ITEMS.....	29
5.2	PERSON-SCORED ITEMS .....	29
5.2.1	SCORING LOCATION AND STAFF .....	30
5.2.2	SCORER RECRUITMENT AND QUALIFICATIONS.....	31
5.2.3	METHODOLOGY FOR SCORING POLYTOMOUS ITEMS.....	31
5.2.4	SCORER TRAINING .....	32
5.2.5	LEADERSHIP TRAINING.....	33
5.2.6	MONITORING OF SCORING QUALITY CONTROL .....	34
5.3	WRITING SCORING.....	36
5.4	ONLINE SCORING OF CBT (COMPUTER-BASED TESTS) .....	37
CHAPTER 6	CLASSICAL ITEM ANALYSIS .....	38
6.1	CLASSICAL DIFFICULTY AND DISCRIMINATION INDICES .....	38
6.2	DIF.....	41
6.3	DIMENSIONALITY ANALYSIS .....	43
CHAPTER 7	ITEM RESPONSE THEORY SCALING AND EQUATING .....	46
7.1	IRT.....	46
7.2	ITEM RESPONSE RESULTS .....	47
7.3	EQUATING .....	48
7.3.1	EQUATING DESIGN .....	48
7.4	EQUATING RESULTS .....	50
7.5	ACHIEVEMENT STANDARDS .....	52
7.6	SCALED SCORES .....	53
CHAPTER 8	RELIABILITY .....	54
8.1	RELIABILITY AND STANDARD ERRORS OF MEASUREMENT .....	55
8.2	SUBGROUP RELIABILITY .....	56
8.3	SUBCATEGORY RELIABILITY .....	56

8.4	INTERRATER CONSISTENCY.....	57
8.5	RELIABILITY OF ACHIEVEMENT LEVEL CATEGORIZATION.....	57
8.5.1	ACCURACY AND CONSISTENCY .....	58
CHAPTER 9	SCORE REPORTING.....	60
9.1	DECISION RULES .....	60
9.2	STATIC REPORTS.....	60
9.2.1	STUDENT REPORT.....	61
9.2.2	SUMMARY REPORTS.....	62
9.2.3	SCHOOL AND DISTRICT SUMMARY REPORTS.....	62
9.3	INTERACTIVE REPORTS .....	64
9.3.1	ROSTER REPORT .....	65
9.3.2	GROUP SUMMARY (PERFORMANCE LEVELS).....	65
9.3.3	GROUP SUMMARY (STANDARDS AND OBJECTIVES) .....	65
9.3.4	GRAPHICAL SUMMARY (PERFORMANCE LEVELS).....	65
9.3.5	LONGITUDINAL ROSTER REPORT.....	65
9.3.6	QUICK REPORTS .....	66
9.4	QUALITY ASSURANCE .....	66
CHAPTER 10	VALIDITY .....	68
10.1	SCALE VALIDATION AND POST-EQUATED CHECK OF PRE-EQUATED TESTS.....	68
10.2	TEST SCORE VALIDATION EVIDENCE.....	68
REFERENCES.....		71
APPENDICES.....		73

APPENDIX A	CONTENT STANDARDS
APPENDIX B	COMMITTEE MEMBERSHIP
APPENDIX C	TEST BLUEPRINTS
APPENDIX D	TEST ACCOMMODATIONS
APPENDIX E	PARTICIPATION RATES
APPENDIX F	ACCOMMODATION FREQUENCIES
APPENDIX G	INTERRATER AGREEMENT
APPENDIX H	ITEM LEVEL CLASSICAL STATISTICS
APPENDIX I	ITEM LEVEL SCORE DISTRIBUTIONS
APPENDIX J	DIFFERENTIAL ITEM FUNCTIONING RESULTS
APPENDIX K	ITEM RESPONSE THEORY PARAMETERS
APPENDIX L	TEST CHARACTERISTIC CURVES AND TEST INFORMATION FUNCTIONS
APPENDIX M	RAW TO SCALED SCORE LOOK-UP TABLES
APPENDIX N	DELTA ANALYSES
APPENDIX O	A-PLOTS AND B-PLOTS-POST-EQUATED
APPENDIX P	A-PLOTS AND B-PLOTS-POST-EQUATED CHECK

APPENDIX Q	SCORE DISTRIBUTIONS
APPENDIX R	CUMULATIVE SCORE DISTRIBUTIONS
APPENDIX S	CLASSICAL RELIABILITY
APPENDIX T	DECISION ACCURACY AND CONSISTENCY RESULTS
APPENDIX U	SAMPLE REPORTS
APPENDIX V	ANALYSIS AND REPORTING DECISION RULES
APPENDIX W	GLOSSARY OF ASSESSMENT TERMS

# CHAPTER 1 OVERVIEW OF THE OKLAHOMA CORE CURRICULUM TESTS

## 1.1 PURPOSE OF THE OKLAHOMA CORE CURRICULUM TESTS

The Oklahoma Core Curriculum Tests (OCCT) assessments are state-mandated criterion-referenced tests that measure student proficiency in specific content areas. Each test has the purpose of measuring the student's knowledge relative to the Oklahoma Priority Academic Student Skills (PASS), Oklahoma's content standards (Appendix A). In spring 2015, the OCCT assessments were administered to all eligible students in grades 3 through 8. The OCCT covered: Mathematics and Reading for grades 3 through 8; Science and Writing for grades 5 and 8; and social studies for grades 5, 7 (Geography), and 8 (U.S. History). Along with the operational tests (OP), other form variations were administered for the OCCT: equivalent forms (EQ), Braille forms (BR), and large-print (LP) forms. Field-test forms were administered for social studies grades 5, 7, and 8.

In the fall of 2014, Measured Progress was contracted by the Oklahoma State Department of Education (SDE) to develop, administer, and maintain the Oklahoma School Testing Program (OSTP) OCCT and Oklahoma Modified Alternate Assessment Program (OMAAP) for Achieving Classroom Excellence (ACE) End-of-Instruction (EOI). The purpose of this technical report is to provide objective information regarding technical aspects of the OCCT 3–8 assessments by specifying the technical details of the work accomplished from fall 2014 (developed, administered, and processed by CTB McGraw Hill) through the end of spring 2015 on these tests. This volume is intended to be one source of information to Oklahoma K–12 educational stakeholders (including testing coordinators, educators, parents, and other interested citizens) about the development, implementation, scoring, and technical attributes of the OCCT 3–8 assessments.

Other sources of information regarding the OSTP Grades 3–8 tests include the administration manual *OSTP 2014–2015 Test Preparation Manual*, interpretation manuals, implementation materials, and training materials for administrators, schools, and teachers, and teachers, students, and parent guides found at <http://ok.gov/sde/assessment-administrator-resources-administrators>.

The spring 2015 OCCT 3–8 field-test items for the Mathematics and Reading grades 3–8, Science grades 5 and 8, and Social Studies grades 5, 7, and 8 assessments were developed by Pearson and CTB in collaboration with the Oklahoma SDE. The assessments for these subjects were developed by Measured Progress in collaboration with the SDE, and were administered by the SDE.

## **1.2 PURPOSE OF THIS REPORT**

This technical report summarizes the development and administration procedures along with the research data analyses conducted on the Oklahoma OCCT 3–8 test administrations and provides data evidences in supporting the validity and reliability of the tests.

For the OCCT 3–8, Reading and Mathematics tests are administered in Grades 3–8; Science, Social Studies, and Writing in grade 5; Geography in grade 7; and Science, U.S. History, and Writing in grade 8. All enrolled students must take the appropriate grade level OCCTs.

## **1.3 ORGANIZATION OF THIS REPORT**

This report includes only data and analyses for the operational forms and content for the spring 2015 administration. It begins with a description of the Oklahoma content standards, which are described in sections 3.2.1 (reading), 3.3.1 (mathematics), 3.4.1 (science), and 3.5.1 (social studies). All operational and field test items for OCCT 3–8 spring 2015 were subjected to cycles of reviews by the SDE. A description of the item development process, along with a description of the alignment process and test development, is presented in complete detail in Chapter 3 –Test Design and Development. A detailed description of the administration processes is found in Chapter 4 – Test Administration, and a discussion of the operational population and the research samples utilized in the analysis is found in Section 3.6 – Test Development Process. Chapter 5 of this report describes in detail the processes that were implemented to monitor the quality of the hand-scoring of student responses for short-answer and constructed-response items.

The spring 2015 OCCT 3–8 scores for Mathematics and Reading tests grades 3 through 8 were based on a post-equating design. The Science test grades 5 and 8 scores were analyzed for new scaling. The Social Studies tests grades 5, 7, and 8 items were field-test items only. A complete description of the operational and field-test item analyses and the calibration/scaling and equating analysis is found in Chapter 6 – Classical Item Analysis and Chapter 7 – Item Response Theory Scaling and Equating. A summary of reliability and validity for different levels of analyses is found in Chapter 8—Reliability and Chapter 10—Validity. A summary of reporting is including in Chapter 9.



## CHAPTER 2 CURRENT YEAR UPDATES

In 2014-15, the OCCT for grades 3-8 was administered by a new testing vendor, Measured Progress. All items and data were transferred from the previous year's vendor. A new testing platform was used. Since new standards are under development, there was no new development of items to the Priority Academic Student Skills (PASS) standards. Field-test slots were filled using items with statistics that were at least three years old.

The primary change, noticeable to the field, was the implementation of a new Computer Based Testing platform, eMetric. Otherwise, the items, test maps, testing times, and instructions for administration remained essentially the same from the previous year's administration.

# CHAPTER 3 TEST DESIGN AND DEVELOPMENT

## 3.1 TEST SPECIFICATIONS

### 3.1.1 Criterion Reference Test

Items on the OCCT grades 3–8 tests were developed specifically for Oklahoma and are directly linked to the Oklahoma Academic Standards (OAS). The standards are the basis for the reporting categories developed for each content area and are used to help guide the development of test items. Each item is designed to measure a specific standard and objective. Existing blueprints and test specifications were developed by previous vendors.

### 3.1.2 Item Types

Multiple-choice items were administered in grades 3–8 in Reading, Mathematics, grades 5 and 8 in Science, and grade 5 U.S. Studies: 1607–1806, grade 7 World Geography: Eastern Hemisphere, and grade 8 U.S. History: 1754–1877. Each item requires approximately one minute for most students to answer. This item type affords efficient use of limited testing time and allows coverage of a wide range of knowledge and skills. Previous test items released for public use are provided by the SDE (see <http://www.ok.gov/sde/documents/2013-09-05/blueprints-plds-item-specs>).

### 3.1.3 Description of Test Design

The OCCT tests are structured using both operational and embedded field-test items. Operational items are taken by all students in a given grade level. Student scores are based only on operational items. The field-test items are new items included on the test for field-test purposes. In addition, field-test items are divided among the multiple forms of the test for each grade and content area. Five test forms were administered for each grade and content area. Each student takes only one form of the test and therefore answers a fraction of all available field-test items. Field-test items are not distinguishable to students. Because all students participate in the field test, an adequate sample size is provided to produce reliable data that can be used to inform item selection for future tests.

## 3.2 READING TEST SPECIFICATIONS

### 3.2.1 Standards

The test framework for Reading in grades 3 through 8 is based on the OAS, and each item on the grades 3 through 8 OCCT Reading tests are designed to measure a specific standard and objective. The measure of Oklahoma students' level of proficiency responding to a variety of items linked to grade-level reading content standards are identified in the OAS. The OAS are organized into four content standards shown in Table 3-1 below.

**Table 3-1. 2014–15 OCCT: Reading Item Types**

<i>Grade 3</i>		<i>Grades 4–8</i>	
Standard 2	Vocabulary	Standard 1	Vocabulary
Standard 4	Comprehension/Critical Literacy	Standard 3	Comprehension/Critical Literacy
Standard 5	Literature	Standard 4	Literature
Standard 6	Research and Information	Standard 5	Research and Information

### 3.2.2 Item Types

The OCCT Reading tests comprise multiple-choice items. Multiple-choice items require students to demonstrate a wide range of knowledge and skill. Each item requires approximately one minute for most students to answer. This item type affords efficient use of limited testing time and allows coverage of a wide range of knowledge and skills. Previous test items released for public use are provided by the SDE (see <http://www.ok.gov/sde/documents/2013-09-05/blueprints-plds-item-specs>).

### 3.2.3 Test Design

Table 3-2 summarizes the numbers and types of items that were used in the 2014–15 OCCT Reading tests for grades 3 through 8. Note that in reading all students received the common items and one set of field-test items. Each multiple-choice item was worth one point.

**Table 3-2. 2014–15 OCCT: Composition of the OCCT Grades 3–8 Reading Tests**

<i>Grade</i>	<i>Operational (OP) Forms</i>	<i>Field Test (FT) Forms</i>	<i>OP Items (per form)</i>	<i>FT Items (per form)</i>	<i>Possible Points (Each test form)</i>
3	1	5	50	10	50
4	1	5	50	10	50

continued

Grade	Operational (OP) Forms	Field Test (FT) Forms	OP Items (per form)	FT Items (per form)	Possible Points (Each test form)
5	1	5	50	10	50
6	1	5	50	10	50
7	1	5	50	10	50
8	1	5	50	10	50

### 3.2.4 Blueprints

The test blueprints identify the amount of content covered on the tests and are based on the importance and coverage of the OAS in Oklahoma schools. The ideal test blueprints are provided by the SDE (see <http://www.ok.gov/sde/documents/2013-09-05/blueprints-plds-item-specs>).

The distribution of emphasis for the OCCT grades 3–8 Reading content standards is shown in Tables 3-3 and 3-4. The actual number of items aligned to each objective can be found in Appendix C.

**Table 3-3. 2014–15 OCCT: Grades 3–5 OAS Reading Standards – Distribution of Emphasis in Terms of Target Percentage of Test by Grade**

Standard	Grade 3		Grade 4		Grade 5	
	Ideal Percentage	Actual Percentage	Ideal Percentage	Actual Percentage	Ideal Percentage	Actual Percentage
Vocabulary	24%	24%	24%	24%	24%	24%
Comprehension/ Critical Literacy	48%	48%	46%	46%	40%	40%
Literature	16%	16%	18%	18%	24%	24%
Research and Information	12%	12%	12%	12%	12%	12%
Total	100%	100%	100%	100%	100%	100%

**Table 3-4. 2014–15 OCCT: Grades 6–8 OAS Reading Standards – Distribution of Emphasis in Terms of Target Percentage of Test by Grade**

Standard	Grade 6		Grade 7		Grade 8	
	Ideal Percentage	Actual Percentage	Ideal Percentage	Actual Percentage	Ideal Percentage	Actual Percentage
Vocabulary	16%	16%	20%	20%	16%	16%
Comprehension/ Critical Literacy	40%	40%	40%	40%	42%	42%
Literature	28%	28%	24%	24%	30%	30%
Research and Information	16%	16%	16%	16%	16%	16%
Total	100%	100%	100%	100%	100%	100%

### 3.2.5 Depth of Knowledge (DOK)

Each item on the OCCT tests in Reading grades 3-8 is assigned a DOK level according to the cognitive demand of the item. DOK is not synonymous with difficulty. The DOK level rates the complexity of the mental processing a student must use to answer the question. The DOK levels and the percentage of items on the tests at each of the levels by grade are shown in Tables 3-5 and 3-6. The difference in the tables between the Ideal Percentages and the Actual Percentages is due to the constraints of the current item bank.

**Table 3-5. 2014–15 OCCT: Grades 3–5 DOK Distributions**

<i>Depth of Knowledge</i>	<i>Ideal Percentages</i>	<i>Grade 3 Actual Percentages</i>	<i>Grade 4 Actual Percentages</i>	<i>Grade 5 Actual Percentages</i>
Level 1 – Recall and Reproduction	20–25%	18%	12%	12%
Level 2 – Skills and Concepts	65–70%	68%	84%	74%
Level 3 – Strategic Thinking	5–15%	14%	4%	14%

**Table 3-6. 2014–15 OCCT: Grades 6–8 DOK Distributions**

<i>Depth of Knowledge</i>	<i>Ideal Percentages</i>	<i>Grade 6 Actual Percentages</i>	<i>Grade 7 Actual Percentages</i>	<i>Grade 8 Actual Percentages</i>
Level 1 – Recall and Reproduction	10–15%	12%	12%	12%
Level 2 – Skills and Concepts	65–70%	72%	68%	72%
Level 3 – Strategic Thinking	15–25%	16%	20%	16%

Level 1 (Recall and Reproduction) requires students to receive or recite facts, use simple skills or abilities, and demonstrate basic comprehension of a text. Items require only a shallow understanding of a single word or phrase. Some examples that represent but do not constitute all Level 1 performances are:

- Support ideas by reference to details in the text.
- Use a dictionary to find the meaning of words.
- Identify figurative language in a reading passage.

Level 2 (Skills and Concepts) includes the engagement of some mental processing beyond recalling or reproducing a response; it requires both comprehension and subsequent processing of text or portions of text. Inter-sentence analysis or inference is required. Some important concepts are covered but not in a complex way. Standards and items at this level may include words such as *summarize*, *interpret*, *infer*, *classify*, *organize*, *collect*, *display*, *compare*, and *determine whether fact or opinion*. Literal main ideas are stressed. A Level 2 assessment item may require students to apply some of the skills and concepts that are covered in Level 1. Some examples that represent, but do not constitute all, Level 2 performances are:

- Use context clues to identify the meaning of unfamiliar words.
- Predict a logical outcome based on information in a reading selection.
- Identify and summarize the major events in a narrative.

Level 3 (Strategic Thinking) encourages students to go beyond the text; however, students are still required to show understanding of the ideas in the text. Students may be encouraged to explain, generalize, or connect ideas. Standards and items at Level 3 involve reasoning and planning and will probably be an extended activity, with extended time provided. The extended time period is not a distinguishing factor if the required work is only repetitive and does not require applying significant conceptual understanding and higher-order thinking. Students take information from at least one passage and are asked to apply this information to a new task. They may also be asked to develop hypotheses and perform complex analyses of the connections among texts, or describe and illustrate how common themes are found across texts from different cultures. Students must be able to support their thinking. Items may involve abstract theme identification, inference across an entire passage, or students' application of prior knowledge. Items may also involve more superficial connections between texts. Some examples that represent, but do not constitute, all Level 3 performances are:

- Analyze and synthesize information from multiple sources.
- Examine and explain alternative perspectives across a variety of sources.
- Describe and illustrate how common themes are found across texts from different cultures.
- Determine the author's purpose and describe how it affects the interpretation of a reading selection.
- Summarize information from multiple sources to address a specific topic.
- Analyze and describe the characteristics of various types of literature.

### **3.2.6 Reading Passages**

Grade-level passages contain identifiable key concepts with relevant supporting details. Each passage will be appropriate for determining the purpose for reading; analyzing character traits; compare/contrast; problem/solution; interpretation; application; analysis; synthesis; drawing conclusions; making an inference; being conducive for vocabulary analogies; and relevant reading tasks as defined by the OAS for the specific grade level.

The passages have a variety of sentence types and lengths, may include dialogue, reflect Oklahoma's cultural diversity, and possess sufficient structural integrity to allow them to be self-contained. Reading passages will reflect a balance of genres from narrative and expository texts. The majority of the selections used for the reading test include authentic literature; a minor portion may be selected from commissioned works.

All passages are reviewed to eliminate cultural or other forms of bias that might disadvantage any group(s) of students. The passages avoid subject matter that might prompt emotional distress. Permissions to use selections from copyrighted material are obtained as necessary.

### **3.2.6.1 READABILITY**

The selected reading passages will be at the appropriate grade level. The readability level of all passages is evaluated using three recognized readability formulas. The formulas chosen for each grade vary according to the purpose for which the formula was developed.

Grades 3 and 4 use the following formulas: Flesch-Kincaid Grade Level, Spache, or any other formula that is deemed appropriate. Grades 5–8 determine the readability level of their passages using the following formulas: Dale-Chall, Flesch-Kincaid Grade Level, Smog, or any other formulas considered reliable.

In addition, sentence structure, length, vocabulary, content, visuals, and organization are reviewed when selecting appropriate grade-level passages. The teacher panel that reviews the passages provides the final evaluation instrument used to make a decision in regards to the readability of a passage.

### **3.2.6.2 VOCABULARY**

The vocabulary words tested in OCCT come directly from the passage content. Words used for vocabulary items have sufficient surrounding context clues for the reader to determine the meaning. Students may encounter words in the text that are not tested but are above the student's grade placement. In grades 3–5, these challenging words and their definitions may be placed in a word box above the story or article. In grades 6–8, the definitions of challenging words may be placed in footnotes.

No single source is available to determine the reading level of various words. Therefore, the appropriateness and difficulty of a word is determined in various ways. Vocabulary words are checked in the following: EDL Core Vocabularies in Reading, Mathematics, Science, and Social Studies; Basic Reading Vocabularies; The Living Word; or other reliable readability sources. In addition to using the aforementioned printed resources to assist in creating vocabulary items, each vocabulary item must be approved by Oklahoma's Content Review Committee. The committee, comprising Oklahoma educators from across the state, reviews proposed vocabulary items for grade-level appropriateness. Reading tests will have vocabulary at grade level. In all other tests, the vocabulary level will be below the grade being tested except for content words. Grades 3 and 4 will be one grade level below, and grades 5, 6, 7, and 8 will be two grade levels below.

**Table 3-7. 2014–15 OCCT: Grades 3–8 Passage Types**

<i>Grades</i>	<i>Literary</i>	<i>Expository</i>
3–5	contemporary realistic fiction, historical fiction, modern fantasy, poetry, drama, and traditional stories (legends, myths, fairy tales, and fables)	informational, biography, autobiographies, and functional text
6–7	short story, novel excerpt, drama, poetry, fable, folk tale, mystery, and myth	informational, biography, autobiographies, and functional text
8	short story, novel excerpt, drama, lyric poetry, historical fiction, fable, folk tale, mystery, myth, limericks, tall tales, and plays	informational, biography, autobiographies, and functional text

### 3.3 MATHEMATICS TEST SPECIFICATIONS

#### 3.3.1 Standards

The test framework for Mathematics at grades 3 through 8 was based on the OAS. Each item on the grades 3 through 8 OCCT tests was designed to measure a specific standard and objective. The science objectives are organized into five content standards:

- Standard 1: Algebraic Reasoning: Patterns and Relationships
- Standard 2: Number Sense and Operation
- Standard 3: Geometry
- Standard 4: Measurement
- Standard 5: Data Analysis

#### 3.3.2 Item Types

The OCCT grades 3-8 Mathematics tests consist of a set of multiple-choice items worth one score point each. Multiple-choice items require students to demonstrate a wide range of knowledge and skills, taking approximately one minute of response time per item. This item type affords efficient use of limited testing time and allows coverage of a wide range of knowledge and skills. Previous test items released for public use are provided by the SDE (see <http://www.ok.gov/sde/documents/2013-09-05/blueprints-plds-item-specs>).



### 3.3.3 Test Design

Table 3-8 summarizes the number of items that were used in the OCCT grades 3-8 Mathematics tests. Note that in mathematics all students received the operational items (OP) and one set of field-test items (FT). Each multiple-choice item was worth one point.

**Table 3-8. 2014–15 OCCT: Composition of the OCCT Grades 3–8 Mathematics Tests**

<i>Grade</i>	<i>OP Forms</i>	<i>FT Forms</i>	<i>OP Items (per form)</i>	<i>FT Items (per form)</i>	<i>Possible Points (Each test form)</i>
3	1	5	50	10	50
4	1	5	50	10	50
5	1	5	50	10	50
6	1	5	50	10	50
7	1	5	50	10	50
8	1	5	50	10	50

### 3.3.4 Blueprints

The test blueprints identify the amount of content covered on the tests and are based on the importance and coverage of the OAS in Oklahoma schools. The ideal test blueprints are provided by the SDE (see <http://www.ok.gov/sde/documents/2013-09-05/blueprints-plds-item-specs>).

The distribution of emphasis for the OCCT grades 3-8 Mathematics content standards is shown in Tables 3-9 and 3-10. The actual number of items aligned to each objective can be found in Appendix C.

**Table 3-9. 2014–15 OCCT: OAS Grades 3–5 Mathematics Standards – Distribution of Emphasis in Terms of Target Percentage of Test by Grade**

<i>Standard</i>	<i>Grade 3</i>		<i>Grade 4</i>		<i>Grade 5</i>	
	<i>Ideal Percentage</i>	<i>Actual Percentage</i>	<i>Ideal Percentage</i>	<i>Actual Percentage</i>	<i>Ideal Percentage</i>	<i>Actual Percentage</i>
Algebraic Reasoning: Patterns & Relationships	14%	14%	14%	14%	26%	26%
Number Sense and Operation	40%	40%	36%	36%	32%	32%
Geometry	14%	14%	18%	18%	14%	14%
Measurement	18%	18%	18%	18%	14%	14%
Data Analysis	14%	14%	14%	14%	14%	14%
Total	100%	100%	100%	100%	100%	100%

**Table 3-10. 2014–15 OCCT: OAS Grades 6–8 Mathematics Standards – Distribution of Emphasis in Terms of Target Percentage of Test by Grade**

<i>Standard</i>	<i>Grade 6</i>		<i>Grade 7</i>		<i>Grade 8</i>	
	<i>Ideal</i>	<i>Actual</i>	<i>Ideal</i>	<i>Actual</i>	<i>Ideal</i>	<i>Actual</i>
	<i>Percentage</i>	<i>Percentage</i>	<i>Percentage</i>	<i>Percentage</i>	<i>Percentage</i>	<i>Percentage</i>
Algebraic Reasoning: Patterns & Relationships	26%	26%	30%	30%	32%	32%
Number Sense and Operation	30%	30%	22%	22%	22%	22%
Geometry	16%	16%	16%	16%	18%	18%
Measurement	14%	14%	18%	18%	14%	14%
Data Analysis	14%	14%	14%	14%	14%	14%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

### 3.3.5 DOK

Each item on the OCCT grades 3-8 Mathematics tests is assigned a DOK level according to the cognitive demand of the item. DOK is not synonymous with difficulty. The DOK level rates the complexity of the mental processing a student must use to answer the question. The description of the DOK levels and the percentage of items on the tests at each of the levels by grade are shown in Tables 3-11 and 3-12. The difference in the tables between the Ideal Percentages and the Actual Percentages is due to the constraints of the current item bank.

**Table 3-11. 2014–15 OCCT: Grades 3–5 DOK Distributions**

<i>Depth of Knowledge</i>	<i>Ideal Percentages</i>	<i>Grade 3 Actual Percentages</i>	<i>Grade 4 Actual Percentages</i>	<i>Grade 5 Actual Percentages</i>
Level 1 – Recall and Reproduction	20-25%	20%	28%	26%
Level 2 – Skills and Concepts	65-70%	70%	64%	64%
Level 3 – Strategic Thinking	5-15%	10%	8%	10%

**Table 3-12. 2014–15 OCCT: Grades 6–8 DOK Distributions**

<i>Depth of Knowledge</i>	<i>Ideal Percentages</i>	<i>Grade 6 Actual Percentages</i>	<i>Grade 7 Actual Percentages</i>	<i>Grade 8 Actual Percentages</i>
Level 1 – Recall and Reproduction	10-15%	18%	16%	16%
Level 2 – Skills and Concepts	65-70%	68%	66%	66%
Level 3 – Strategic Thinking	15-25%	14%	18%	18%

Level 1 (Recall and Reproduction) requires the student to recall facts, terms, definitions, or simple procedures, and to perform simple algorithms or apply formulas. One-step, well-defined, or straight algorithmic procedures should be included at this level.

Level 2 (Skills and Concepts) requires the student to make some decision as to how to approach the problem or activity. Level 2 activities include: making observations and collecting data; classifying, comparing, and organizing data; and organizing and displaying data in tables, charts, and graphs.

Level 3 (Strategic and Extended Thinking) requires complex reasoning, planning, developing, using evidence, and utilizing a higher level of thinking. These processes typically require an extended amount of time. The cognitive demands of the item should be high and the work should be complex. In order to be considered at this level, students are required to make several connections (relate ideas *within* the content area or *among* the content areas) and select one approach among many alternatives as to how the situation should be solved. Level 3 activities include: making conjectures; drawing conclusions from observations; citing evidence; developing a logical argument for concepts; explaining phenomena in terms of concepts; and using concepts to solve non-routine problems.

Note: The descriptions are adapted from Review Background Information and Instructions, Standards and Assessment Alignment Analysis, CCSSO TILSA Alignment Study, May 21–24, 2001, Version 2.0.

For an extended description of each DOK level, see the student assessment website at <http://www.ok.gov/sde>.

## **3.4 SCIENCE TEST SPECIFICATIONS**

### **3.4.1 Standards**

The test framework for Science at grades 5 and 8 are based on the OAS, and each item on the Science tests was designed to measure a specific process standard/objective and a specific content standard/objective, except for Safety Items, which align only to a specific process standard/objective.

The grade 5 Science objectives are organized into four process standards and three content standards.

- Process Standard 1: Observe and Measure
- Process Standard 2: Classify
- Process Standard 3: Experiment
- Process Standard 4: Interpret and Communicate
- Content Standard 1: Properties of Matter and Energy
- Content Standard 2: Organisms and Environments
- Content Standard 3: Structures of the Earth and the Solar System

The grade 8 Science objectives are organized into four process standards and five content standards.

- Process Standard 1: Observe and Measure
- Process Standard 2: Classify

- Process Standard 3: Experiment
- Process Standard 4: Interpret and Communicate
- Content Standard 1: Properties and Chemical Changes in Matter
- Content Standard 2: Motion and Forces
- Content Standard 3: Diversity and Adaptations of Organisms
- Content Standard 4: Structures/Forces of the Earth/Solar System
- Content Standard 5: Earth’s History

### 3.4.2 Item Types

The OCCT grades 5 and 8 Science tests consisted of a collection of multiple-choice items. Each item requires approximately one minute for most students to answer. This item type affords efficient use of limited testing time and allows coverage of a wide range of knowledge and skills. Previous test items released for public use are provided by the SDE (see <http://www.ok.gov/sde/documents/2013-09-05/blueprints-plds-item-specs>).

### 3.4.3 Test Design

Table 3-13 summarizes the number of multiple-choice items that were used on the OCCT grades 5 and 8 Science tests. Note that in science all students received the operational items (OP) and one set of field-test items (FT). Each multiple-choice item was worth one point.

**Table 3-13. 2014–15 OCCT: Composition of the OCCT Grades 5 and 8 Science Tests**

<i>Grade</i>	<i>OP Forms</i>	<i>FT Forms</i>	<i>OP Items (per form)</i>	<i>FT Items (per form)</i>	<i>Possible Points (Each test form)</i>
5	1	5	45	10	45
8	1	5	45	10	45

### 3.4.4 Blueprints

The test blueprints identify the amount of content covered on the tests and are based on the importance and coverage of the OAS in Oklahoma schools. The ideal test blueprints are provided by the SDE (see <http://www.ok.gov/sde/documents/2013-09-05/blueprints-plds-item-specs>).

The distribution of emphasis for the OCCT grades 5 and 8 Science process and content standards is shown in Tables 3-14 and 3-15. The actual number of items aligned to each objective can be found in Appendix C.

**Table 3-14. 2014–15 OCCT: OAS Grade 5 Science Process Standards – Distribution of Emphasis in Terms of Target Percentage of Test by Grade**

<i>Process Standard</i>	<i>Ideal Percentage</i>	<i>Actual Percentage</i>	<i>Content Standard</i>	<i>Ideal Percentage</i>	<i>Actual Percentage</i>
P1.0 Observe and Measure	18–22%	22%	C1.0 Properties of Matter and Energy	39–44%	41%
P2.0 Classify	18–22%	22%	C2.0 Organisms and Environments	24–32%	29%
P3.0 Experiment	29–33%	29%	C3.0 Structures of the Earth and the Solar System	2–9-37%	29%
P4.0 Interpret and Communicate	27–31%	27%	Total	100%	100%
Total	100%	100%			

**Table 3-15. 2014–15 OCCT: OAS Grade 8 Science Process Standards – Distribution of Emphasis in Terms of Target Percentage of Test by Grade**

<i>Process Standard</i>	<i>Ideal Percentage</i>	<i>Actual Percentage</i>	<i>Content Standard</i>	<i>Ideal Percentage</i>	<i>Actual Percentage</i>
P1.0 Observe and Measure	18–22%	20%	C1.0 Properties and Chemical Changes in Matter	19%	19%
P2.0 Classify	18–22%	16%	C2.0 Motion and Forces	19%	19%
P3.0 Experiment	29–33%	36%	C3.0 Diversity and Adaptations of Organisms	17%	17%
P4.0 Interpret and Communicate	27–31%	29%	C4.0 Structures/Forces of the Earth/Solar System	27%	27%
Total	100%	100%	C5.0 Earth's History	18%	18%
			Total	100%	100%

### 3.4.5 Depth of Knowledge (DOK)

Each item on the OCCT grades 5 and 8 Science tests is assigned a DOK level according to the cognitive demand of the item. DOK is not synonymous with difficulty. The DOK level rates the complexity of the mental processing a student must use to answer the question. The description of the DOK levels and the percentage of items on the tests at each of the levels by grade are shown in Table 3-16. The difference in the tables between the Ideal Percentages and the Actual Percentages is due to the constraints of the current item bank.

**Table 3-16. 2014–15 OCCT: DOK in Grades 5 and 8 Science**

<i>Grade</i>	<i>Depth of Knowledge</i>	<i>Ideal Percentage of Items</i>	<i>Actual Percentage of Items</i>
5	Level 1 – Recall and Reproduction	20–25%	16%
	Level 2 – Skills and Concepts	65–70%	76%
	Level 3 – Strategic Thinking	5–15%	9%
8	Level 1 – Recall and Reproduction	10–15%	16%
	Level 2 – Skills and Concepts	60–65%	64%
	Level 3 – Strategic Thinking	20–30%	20%

Level 1 (Recall and Reproduction) is the recall of information such as a fact, definition, term, or a simple procedure, as well as performing a simple science process or procedure. Level 1 requires students to demonstrate a rote response, use a well-known formula, follow a set procedure (like a recipe), or perform a clearly defined series of steps. A “simple” procedure is well defined and typically involves only one step. Verbs such as “identify,” “recall,” “recognize,” “use,” “calculate,” and “measure” generally represent cognitive work at the recall and reproduction level. Simple word problems that can be directly translated into and solved by a formula are considered Level 1. Verbs such as “describe” and “explain” could be classified at different DOK levels, depending on the complexity of what is to be described and explained.

A student answering a Level 1 item either knows the answer or does not; that is, the answer does not need to be “figured out” or “solved.” In other words, if the knowledge necessary to answer an item automatically provides the answer to the item, the item is at Level 1. If the knowledge necessary to answer the items does not automatically provide the answer, the item is at least at Level 2.

Some examples that represent, but do not constitute all, Level 1 performances are:

- Recall or recognize a fact, term, or property.
- Represent in words or diagrams a scientific concept or relationship.
- Provide or recognize a standard, scientific representation for simple phenomena.
- Perform a routine procedure, such as measuring length.

Level 2 (Skills and Concepts) includes the engagement of some mental processing beyond recalling or reproducing a response. The content knowledge or process involved is more complex than in Level 1. Items require students to make some decisions as to how to approach the question or problem. Keywords that generally distinguish a Level 2 item include “classify,” “organize,” “estimate,” “make observations,” “collect and display data,” and “compare data.” These actions imply more than one step. For example, to compare data requires first identifying characteristics of the objects or phenomenon, and then grouping or ordering the objects. Level 2 activities include: making observations and collecting data; classifying, organizing, and comparing data; and organizing and displaying data in tables, graphs, and charts.

Some action verbs, such as “explain,” “describe,” or “interpret” could be classified at different DOK levels, depending on the complexity of the action. For example, interpreting information from a simple graph,

which requires reading information from the graph, is a Level 2. An item that requires interpretation from a complex graph, such as making decisions regarding features of the graph that need to be considered and how information from the graph can be aggregated, is at a Level 3.

Some examples that represent, but do not constitute all, Level 2 performances are:

- Specify and explain the relationship between facts, terms, properties, or variables
- Describe and explain examples and non-examples of science concepts
- Select a procedure according to specified criteria and perform it
- Formulate a routine problem given data and conditions
- Organize, represent, and interpret data

Level 3 (Strategic and Extended Thinking) requires reasoning, planning, using evidence, and a higher level of thinking than the previous two levels. The cognitive demands of Level 3 are complex and abstract. The complexity does not result only from the fact that there could be multiple answers, a possibility for both Levels 1 and 2, but because the multi-step task requires more demanding reasoning. In most instances, requiring students to explain their thinking is at Level 3; requiring a very simple explanation or a word or two should be at Level 2. An activity that has more than one possible answer and requires students to justify the response they give would most likely be Level 3. Experimental designs in Level 3 typically involve more than one dependent variable. Other Level 3 activities include: drawing conclusions from observations; citing evidence and developing a logical argument for concepts; explaining phenomena in terms of concepts; and using concepts to solve non-routine problems.

Some examples that represent, but do not constitute all, Level 3 performances are:

- Identify research questions and design investigations for a scientific problem.
- Solve nonroutine problems.
- Develop a scientific model for a complex situation.
- Form conclusions from experimental data.

Note: The descriptions are adapted from Review Background Information and Instructions, Standards and Assessment Alignment Analysis, CCSSO TILSA Alignment Study, May 21–24, 2001, Version 2.0.

For an extended description of each DOK level, see the student assessment website at <http://www.ok.gov/sde>.

### **3.4.6 Use of Calculators and References Sheets**

Approved calculators were allowed on of the OCCT grade 8 science test. For approved calculators, see the calculator policy posted on the OK SDE website ([http://ok.gov/sde/sites/ok.gov.sde/files/documents/files/Calculator%20Policy%202014\\_0.pdf](http://ok.gov/sde/sites/ok.gov.sde/files/documents/files/Calculator%20Policy%202014_0.pdf)). No other resource materials or reference sheets were allowed to be used by students during the test.

## **3.5 SOCIAL STUDIES**

### **3.5.1 Standards and Objectives**

The test framework for Social Studies in grades 5, 7, and 8 is based on the OAS and each item on the grades 5, 7, and 8 OCCT Social Studies tests are designed to measure a specific standard and objective. The measure of Oklahoma students' level of proficiency responding to a variety of items linked to grade level social studies content standards are identified in the OAS.

#### Grade 5 United States Studies: 1607–1806

- Standard 1: James Towne Settlement and Plimoth Plantation
- Standard 2: Colonial America
- Standard 3: American Revolution
- Standard 4: Early Federal Period

#### Grade 7 Geography: Eastern Hemisphere

- Standard 1: Geography Tools/Geography Skills
- Standard 2: Human and Physical Characteristics of Regions
- Standard 3: Physical Systems of the Earth
- Standard 4: Human Systems
- Standard 5: Human Environmental Interactions

#### Grade 8 U.S. History: 1754: 1877

- Standard 1: Causes and Events of the American Revolution
- Standard 2: The Revolutionary Era
- Standard 3: Developing the American Government System
- Standard 4: The Transformation of the United States to the Mid-1800s
- Standard 5: Causes, Events, and Leadership in the Civil War

### **3.5.2 Item Types**

The OCCT Social Studies tests comprise multiple-choice items. Multiple-choice items require students to demonstrate a wide range of knowledge and skill. Each item requires approximately one minute for most students to answer. This item type affords efficient use of limited testing time and allows coverage of a wide range of knowledge and skills. Previous test items released for public use are provided by the SDE (see <http://www.ok.gov/sde/documents/2013-09-05/blueprints-plds-item-specs>).



**Table 3-17. 2014–15 OCCT: Social Studies Item Types**

<i>Item Type</i>	<i>Possible Score Points</i>
Multiple Choice	1

### 3.5.3 Test Design

Table 3-18 summarizes the numbers and types of items that were used in the 2014–15 OCCT Social Studies tests for grades 5, 7, and 8. Note that in social studies all students received the common items and one set of field-test items. Each multiple-choice item was worth one point.

**Table 3-18. 2014–15 OCCT: Composition of the OCCT Grades 5, 7, and 8 Social Studies Tests**

<i>Grade</i>	<i>Operational (OP) Forms</i>	<i>Field Test (FT) Forms</i>	<i>OP Items (per form)</i>	<i>FT Items (per form)</i>	<i>Possible Points (Each test form)</i>
5	1	5	50	10	50
7	1	5	50	10	50
8	1	5	50	10	50

### 3.5.4 Blueprints

The test blueprints identify the amount of content covered on the tests and are based on the importance and coverage of the OAS in Oklahoma schools. The test blueprints are provided by the SDE (see <http://www.ok.gov/sde/documents/2013-09-05/blueprints-plds-item-specs>).

The distribution of emphasis for the OCCT grades 5, 7, and 8 Social Studies content standards is shown in Table 3-19. The actual number of items aligned to each objective can be found in Appendix C.

**Table 3-19. 2014–15 OCCT: OAS Social Studies Standards – Distribution of Emphasis in Terms of Target Percentage of Test by Grade**

<i>Grade</i>	<i>Standard</i>	<i>Ideal Percentage</i>	<i>Actual Percentages</i>
5	1.0 James Towne Settlement and Plimoth Plantation	16%	16%
	2.0 Colonial America	20%	20%
	3.0 American Revolution	36%	36%
	4.0 Early Federal Period	36%	36%
	Total	100%	100%
7	1.0 Geography Tools/Geography Skills	12%	12%

continued

<i>Grade</i>	<i>Standard</i>	<i>Ideal Percentage</i>	<i>Actual Percentages</i>
7	2.0 Human and Physical Characteristics of Regions	24%	24%
	3.0 Physical Systems of the Earth	12%	12%
	4.0 Human Systems	32%	32%
	5.0 Human Environmental Interactions	20%	20%
	Total	100%	100%
8	1.0 Causes and Events of the American Revolution	16%	16%
	2.0 The Revolutionary Era	12%	12%
	3.0 Developing the American Government System	20%	20%
	4.0 The Transformation of the United States to the Mid-1800s	32%	32%
	5.0 Causes, Events, and Leadership in the Civil War	20%	20%
	Total	100%	100%

### 3.5.5 Depth of Knowledge (DOK)

Each item on the OCCT tests in Social Studies grades 5, 7, and 8 is assigned a DOK level according to the cognitive demand of the item. DOK is not synonymous with difficulty. The DOK level rates the complexity of the mental processing a student must use to answer the question. The DOK levels and the percentage of items on the tests at each of the levels by grade are shown in Table 3-20. The difference in the tables between the Ideal Percentages and the Actual Percentages is due to the constraints of the current item bank.

**Table 3-20. 2014–15 OCCT: DOK in Grades 5, 7, and 8 Social Studies**

<i>Grade</i>	<i>Depth of Knowledge</i>	<i>Ideal Percentage of Items</i>	<i>Actual Percentage of Items</i>
5	Level 1 – Recall and Reproduction	20–25%	24%
	Level 2 – Skills and Concepts	65–70%	64%
	Level 3 – Strategic Thinking	5–15%	12%
7	Level 1 – Recall and Reproduction	10–15%	10%
	Level 2 – Skills and Concepts	65–70%	73%
	Level 3 – Strategic Thinking	15–25%	16%
8	Level 1 – Recall and Reproduction	10–15%	20%
	Level 2 – Skills and Concepts	65–70%	68%
	Level 3 – Strategic Thinking	15–25%	12%

Level 1 (Recall and Reproduction) asks students to recall facts, terms, concepts, and trends, or to recognize or identify specific information contained in graphics. This level generally requires students to identify, list, or define. The items at this level usually ask the students to recall who, what, when, and where. Items that require students to “describe” and/or “explain” could be classified at Level 1 or Level 2, depending on what is to be described and/or explained. A Level 1 “describe and/or explain” would require students to recall, recite, or reproduce information. Items that require students to recognize or identify specific information contained in documents, excerpts, quotations, maps, charts, tables, graphs, or illustrations are generally Level 1.

Level 2 (Skills and Concepts) includes the engagement of some mental processing beyond recalling or reproducing a response. This level requires students to: contrast or compare people, places, events, and concepts; convert information from one form to another; give an example; classify or sort items into meaningful categories; draw conclusions; or describe, interpret, or explain issues and problems, patterns, reasons, cause and effect, significance or impact, relationships, points of view, or processes. A Level 2 “describe and/or explain” would require students to go beyond a description of recalled information to describe and/or explain the result or “how” or “why.”

Level 3 (Strategic and Extended Thinking) requires reasoning, using evidence, and utilizing a higher level of thinking than Level 1 and Level 2. Students will go beyond explaining or describing “how and why” to justifying the “how and why” through application and evidence. The cognitive demands at Level 3 are more complex and more abstract than Level 1 or Level 2. Items at Level 3 can include: drawing conclusions from multiple or complex stimuli; citing evidence; applying concepts to new situations; using concepts to solve problems; analyzing similarities and differences in issues and problems; proposing and evaluating solutions to problems; recognizing and explaining misconceptions; or making connections across time and place to explain a concept or “big idea.” Items may require planning, investigating, or developing. At this level, the cognitive demands may be high, work may be very complex, and students may be required to: connect and relate ideas and concepts within the content area; analyze and synthesize information from multiple sources; examine and explain alternative perspectives across a variety of sources; and/or describe and illustrate how common themes and concepts are found across time and place. Students may make predictions with evidence as support.

## **3.6 TEST DEVELOPMENT PROCESS**

### **3.6.1 Item Selection and Operational Test Assembly**

In preparation for the item selection meeting, the test developers and psychometricians at Measured Progress considered the following when selecting sets of items to propose for the common (including items for release) and the embedded field tests:

- **Content coverage/match to test design.** The test design stipulates a specific number of multiple-choice and constructed-response items from each content area. Item selection for the embedded field test was based on the number of items in the existing pool of items eligible for the common item set.
- **Item difficulty and complexity.** Item statistics drawn from the data analysis of previously tested items were used to ensure similar levels of difficulty and complexity from year to year as well as quality psychometric characteristics.
- **“Cueing” items.** Items were reviewed for any information that might “cue” or provide information that would help to answer another item.

During assembly of the test forms, the following criteria were considered:

- **Option balance.** Items were balanced among the forms so that each form contained a fairly equal distribution of keys (correct answers).
- **Key patterns.** The sequence of keys was reviewed to ensure that key order appeared random.
- **Page fit.** Item placement was modified to ensure the best fit and arrangement of items on any given page.
- **Facing-page issues.** For multiple items associated with a single stimulus (inquiry task) and multiple-choice items with large graphics, consideration was given to whether those items needed to begin on a left- or right-hand page and to the nature and amount of material that needed to be placed on facing pages. These considerations serve to minimize the amount of page flipping required of students.
- **Relationship between forms.** Although equating and field-test items differ across forms, these items must take up the same number of pages in each form so that sessions begin on the same page in every form. Therefore, the number of pages needed for the longest form often determines the layout of each form.
- **Visual appeal.** The visual accessibility of each page of the form was taken into consideration, including such aspects as the amount of white space, the density of the text, and the number of graphics.

### 3.6.2 Operational Test Draft Review

After the forms were laid out as they would appear in the final test booklets, they were again thoroughly reviewed by Measured Progress editors and test developers to ensure that the items appeared exactly as the state science specialists had requested. Finally, all the forms were reviewed by the state specialists for their final approval.

### **3.6.3 Alternative Presentations**

Common items were translated into Braille by a subcontractor that specializes in test materials for students who are blind or visually impaired. In addition, Form 1 for each grade was also adapted into a large-print version.

## CHAPTER 4 TEST ADMINISTRATION

### 4.1 RESPONSIBILITY FOR ADMINISTRATION

The *2015 OCCT Test Administration Manual* indicated that principals and/or their designated OCCT test coordinators were responsible for the proper administration of the OCCT tests. Uniformity of administration procedures from school to school was ensured by using manuals that contained explicit directions and scripts to be read aloud to students by test administrators.

### 4.2 ADMINISTRATION PROCEDURES

The districts' designated OCCT test coordinators were instructed to read the *2014-15 OCCT Test Administration Manual*. The *OCCT Test Administration Manual* included a section highlighting aspects of test administration that were new for the year and checklists to help prepare for testing. The checklists outlined tasks to be performed by school staff before, during, and after test administration. In addition to these checklists, the *OCCT Test Administration Manual* described the testing material sent to each school and how to inventory it, track it during administration, and return it after testing was complete. An additional focus was on maintaining test security of the materials. The *Test Administrator Manual* included checklists for the administrators to use to prepare themselves, their classrooms, and the students for the administration of the tests. The *Test Administrator Manual* contained sections that detailed the procedures to be followed for each test session and instructions for preparing the material before the test coordinator returned it to Measured Progress.

### 4.3 PARTICIPATION REQUIREMENTS AND DOCUMENTATION

The intent of the SDE in Oklahoma is for all students in grades 3 through 8 and high school to participate in the OCCT tests through a standard administration, an administration with accommodations (Appendix D), or an alternate assessment. Furthermore, any student who is absent during any session of the OCCT tests is expected to take a make-up test within the testing window.

Schools were required to return a Student Answer Document for every enrolled student in the grade level, with the exception of students who took an alternate assessment in the previous school year. Students who were alternately assessed in the 2014–15 school year were not required to participate in the OCCT in 2014–15. On those occasions when it was deemed impossible to test a particular student, school personnel were required to inform their SDE.

A summary of participation on the 2014–15 Oklahoma OCCT grade 3-8 by demographic category is shown in Appendix E.

### **4.3.1 Students With Disabilities**

All students were expected to participate in the 2015 OCCT tests, unless they completed alternate assessment during the 2014–15 school year.

Large print versions of the tests were created using Form 1 of the tests at all grade levels enlarged to 20-point font for students with visual impairments. At all grades, only the common items were translated into Braille by American Printing House for the Blind, a subcontractor that specializes in test materials for students who are blind or have visual impairments.

### **4.3.2 Students With Limited English Proficiency**

Students who had received less than 12 months of consecutive instruction in a U.S. public school and were designated as limited English proficient (LEP) were only required to take the Math, Science, and Social Studies OCCTs. A one year optional exemption was available for Reading and Writing OCCTs. Students who were new to the United States after October 1, 2014, and were designated as limited English proficient (LEP) were required to take the 2015 OCCT tests. A one year optional exemption was available for Reading and Writing OCCTs.

## **4.4 ADMINISTRATOR TRAINING**

In addition to distributing the *2014-15 OCCT Test Administration Manual*, the Oklahoma SDE, and Measured Progress conducted test administration workshops and webinars to inform school personnel about the OCCT tests and to provide training on the policies and procedures regarding administration of the tests. In person trainings were conducted in October and March. In addition, an audio PowerPoint test administration workshop presentation was also prerecorded and provided the state for inclusion on the SDE website.

## **4.5 DOCUMENTATION OF ACCOMMODATIONS**

The *OSTP Accommodations Manual* provided directions for coding information related to accommodations and modifications in the Student Answer Document. All accommodations used during any test session were required to be coded by authorized school personnel—not by students—after testing was completed. See Table 4-1 for the number of students tested with and without accommodations for the 2014–15 school year. In addition, the numbers of students who were tested with accommodations are presented by accommodation type in Appendix F.

**Table 4-1. 2014–15 OCCT: Numbers of Students Tested With and Without Accommodations by Subject and Grade**

Grade	Subject	Number of Students Tested:	
		With Accommodations	Without Accommodations
3	Mathematics	7,769	43,600
	Reading	7,025	44,219
4	Mathematics	6,066	40,638
	Reading	5,662	40,916
5	Mathematics	6,775	41,753
	Reading	6,361	42,055
	Science	6,634	41,866
	Social Studies	6,576	41,890
	Writing	6,042	42,150
6	Mathematics	6,706	41,544
	Reading	5,282	42,632
7	Mathematics	6,717	39,973
	Reading	5,462	42,028
	Geography	6,662	40,915
8	Mathematics	5,972	30,926
	Reading	4,889	42,228
	Science	4,471	42,856
	U.S. History	4,438	42,883
	Writing	4,424	42,736

A test accommodation is a change in the way a test is administered or in the way a student responds to test questions. Similar to instructional accommodations, test accommodations are intended to offset the effects of a student’s disability and to provide him or her with the opportunity to demonstrate knowledge and skills on statewide assessments.

The right of a student with a disability to receive allowable accommodations on OSTP tests is protected by both federal and state laws. The student’s current IEP/504 plan must specify precisely which test accommodation(s) he or she will receive. In cases where an IEP/504 plan is under development, the school personnel responsible for writing the plan must have already met and agreed upon the necessary accommodation(s) before a student may be provided the accommodation(s).

A student who does not have a documented disability or is not served by a current IEP/504 plan is not eligible to receive accommodations on OSTP tests, except for Emergency Accommodation situations. Scribes may be provided for any student (with or without an IEP or Section 504 plan) who has a short-term medical condition that affects his or her physical dexterity which impedes his/her ability to respond to the assessment format.

## 4.6 TEST SECURITY

Maintaining test security is critical to the success of the OCCT. The *Test Administrator Manual* explains in detail all test security measures and test administration procedures.



Each district test coordinator, building test coordinator, test administrator, and test proctor is responsible for all secure test materials received and for returning all secure test materials (see Section 210:10-13-4 of the Oklahoma Administrative Code). Violation of regulations may result in revocation of a person’s teaching, counseling, administrative, and/or other certificates. The tests, and all of the materials associated with these tests, are secure materials. It is important not to provide an opportunity for any student to have access to the tests and thus have an advantage over other students before the administration of the tests. Prior exposure to the tests would invalidate scores. The materials associated with these tests may not be photocopied or reproduced in any other fashion, including paraphrasing--to do so is in violation of copyright law.

The TAM describes, in detail, policy and procedures for Nondisclosure of test content, securing test materials, the use of proctors, use of security forms, test administrator responsibilities, and reporting test irregularities.

#### 4.7 TEST AND ADMINISTRATION IRREGULARITIES

There were no test irregularities reported during the 2014–15 test administration.

#### 4.8 TEST ADMINISTRATION WINDOW

The test administration window was as follows:

**Table 4-2. 2014–15 OCCT: Test Administration Window**

<i>Testing Period</i>	<i>Dates</i>
Grade 5 and 8 Writing	February 24–February 26, 2015
Grades 3–8 Reading/Math/Science/SS	March 12–May 15, 2015

Total administration by test mode, paper-based tests (PBT) or online computer-based tests (CBT), for each grade and subject is shown in the table below.

**Table 4-3. 2014-15 OCCT: Test Modes by Subject and Grade**

<i>Grade</i>	<i>Subject</i>	<i>TestMode</i>	<i>Count</i>
3	Math	Paper	52,909
	Reading	Paper	52,895
4	Math	Paper	48,115
	Reading	Paper	48,116
5	Math	Paper	49,952
	Reading	Paper	49,949
	Science	Paper	49,961
	Social Studies	Paper	49,960
	Writing	Paper	49,978
6	Math	Online	47,938
		Paper	1,896
	Reading	Online	48,790
		Paper	1,808

continued

<i>Grade</i>	<i>Subject</i>	<i>TestMode</i>	<i>Count</i>
7	Math	Online	46,982
		Paper	1,804
	Reading	Online	48,013
		Paper	1,791
	Geography	Online	47,907
		Paper	1,682
8	Math	Online	41,471
		Paper	1,970
	Reading	Online	47,859
		Paper	1,896
	Science	Paper	49,178
	US History	Paper	49,178
Writing	Paper	49,271	
Spring Retest	Algebra1_r	Online	3,603
	Algebra2_r	Online	453
	Biology_r	Online	3,235
	English2_r	Online	2,348
	English3_r	Online	781
	Geometry_r	Online	1,555
	US History_r	Online	1,094

## 4.9 SERVICE CENTER

To provide additional support to schools before, during, and after testing, Measured Progress operates the OCCT Service Center. The support of a service center is essential to the successful administration of any statewide test program. The service center provides a centralized location to which individuals in the field can call, using a toll-free number, to ask specific questions or report any problems he or she may be experiencing. Representatives are responsible for receiving, responding to, and tracking calls, then routing issues to the appropriate person(s) for resolution. All calls are logged into a database that includes notes regarding the issue and resolution of each call.

The service center was staffed year-round and was available to receive calls from 8:00 a.m. to 4:00 p.m., Monday through Friday. Extra representatives and extended hours were added beginning approximately two weeks before the start of the testing window and ending two weeks after the end of the testing window to assist with handling the additional call volume.

## CHAPTER 5 SCORING

Upon receipt of used OCCT answer booklets following testing, Measured Progress scanned all student responses, along with student identification and demographic information. Imaged data for multiple-choice responses were machine-scored. Images of open-response items were processed and organized by iScore, a secure server-to-server electronic scoring software designed by Measured Progress, for hand-scoring. All student responses to the writing prompt were hand-scored.

Student responses that could not be physically scanned (e.g., answer documents damaged during shipping) and typed responses submitted according to applicable test accommodations were physically reviewed and scored on an individual basis by trained, qualified Scoring Supervisors or the Scoring Content Specialist. These scores were linked to the student's demographic data and merged with the student's scoring file by Measured Progress's Data and Reporting Services department.

### 5.1 MACHINE-SCORED ITEMS

Multiple-choice responses were compared to scoring keys using item analysis software. Correct answers were assigned a score of 1 point; incorrect answers were assigned a score of 0 points. Student responses with multiple marks or blank responses were also assigned 0 points.

The hardware elements of the scanners monitored themselves continuously for correct reads, and the software driving these scanners monitored the correct data reads. Standard checks included recognition of a sheet that did not belong, was upside down, or was backward; identification of missing critical data, including a student ID number or test form that was out of range or missing; and identification of page/document sequence errors. When a problem was detected, the scanner stopped and displayed an error message directing the operator to investigate and correct the situation.

### 5.2 PERSON-SCORED ITEMS

The images of student responses to constructed-response items were hand-scored through the iScore system. Using iScore minimized the need for scorers to physically handle actual answer booklets and related scoring materials. Student confidentiality was easily maintained, as all Oklahoma scoring was blind (i.e., district, school, and student names were not visible to scorers). The iScore system maintained the link between the student response images and their associated test booklet numbers.

Through iScore, qualified scorers accessed electronically scanned images of student responses at computer terminals. The scorers evaluated each response and recorded each student's score via keypad or mouse entry through the iScore system. When a scorer finished one response, the next response immediately appeared on the computer screen.

Imaged responses from all answer booklets were sorted into item-specific groups for scoring purposes. Scorers reviewed responses from only one item at a time; however, when necessary, imaged

responses from a student’s entire booklet were available for viewing, and the physical booklet was also available to the on-site chief reader.

The use of iScore also helped ensure that access to student response images was limited to only those who were scoring or who were working for Measured Progress in a scoring management capacity.

## 5.2.1 Scoring Location and Staff

### Scoring Location

The iScore database, its operation, and its administrative controls are all based in Dover, New Hampshire. Table 5-1 presents the locations where 2014–15 OCCT test item responses by content area and grade were scored.

**Table 5-1. 2014–15 OCCT: Operational Scoring Locations by Content Area and Grade**

<i>Content Area</i>	<i>Grade</i>	<i>Dover, NH</i>	<i>Menands, NY</i>	<i>Longmont, CO</i>
Writing	5	X	X	
	8		X	X

The iScore system monitored accuracy, reliability, and consistency across all scoring sites. Constant daily communication and coordination were accomplished through e-mail, telephone, and secure websites to ensure that critical information and scoring modifications were shared and implemented across all scoring sites.

### Staff Positions

The following staff members were involved with scoring the 2014–15 OCCT responses:

- The Oklahoma scoring project manager was located in Dover, New Hampshire, and oversaw communication and coordination of scoring across all scoring sites.
- The iScore operational manager was located in Dover, New Hampshire, and coordinated technical communication across all scoring sites.
- A Scoring Content Specialist (Writing) ensured consistency of scoring for all responses. The Content Specialist is based in Dover, New Hampshire, but traveled to Menands, New York, to conduct training and supervise the first week of scoring activities on site.
- Multiple Scoring Supervisors, selected from a pool of experienced Scoring Team Leaders for their ability to score accurately and to instruct and train scorers, participated in benchmarking activities for each specific grade and content area. Scoring Supervisors provided read-behind activities (defined in Section 5.2.6) for Scoring Team Leaders at their sites.
- Numerous Scoring Team Leaders, selected from a pool of skilled and experienced scorers, provided read-behind activities (defined in Section 5.2.6) for the scorers at their

scoring tables (2–12 scorers at each table). The ratio of Scoring Team Leaders to scorers was approximately 1:6.

- Scorers at scoring sites scored operational OCCT 2014–15 student responses. Recruitment of scorers is described in Section 5.2.2.

## 5.2.2 Scorer Recruitment and Qualifications

For scoring the 2014–15 OCCT tests, Measured Progress actively sought a diverse scoring pool. The broad range of scorer backgrounds included scientists, business professionals, authors, teachers, graduate school students, and retired educators. Demographic information (e.g., gender, race, educational background) about scorers was electronically captured for reporting.

All Scorers were required to have, at a minimum, a four-year college degree with demonstrated coursework related to the content being scored. Preference was given to individuals with degrees in content or education. In all cases, potential scorers were required to submit documentation (e.g., résumé and/or transcripts) of their qualifications.

Table 5-2 summarizes the qualifications of the 2014–15 OCCT scoring leadership and scorers.

**Table 5-2. 2014–15 OCCT: Qualifications of Scoring Leadership and Scorers—  
Fall Administration**

<i>Scoring Responsibility</i>	<i>Educational Credentials</i>				<i>Total</i>
	<i>Doctorate</i>	<i>Master's</i>	<i>Bachelor's</i>	<i>Other</i>	
Scoring Leadership	6	12	15	0	33
Scorers	21	65	106	0	192

Scoring Leadership =, Scoring Supervisors, and Scoring Team Leaders

All scorers were required to sign a nondisclosure/confidentiality agreement.

## 5.2.3 Methodology for Scoring Polytomous Items

### Possible Score Points

For all writing prompts, responses were scored in five traits (domains) on a 1–4 scale.

### Nonscorable Items

Scorers could designate a response as nonscorable for any of the following reasons:

- Response was blank (no attempt to respond to the question).
- Response was unreadable (illegible, too faint to see, or only partially legible/visible)—*see following note.*
- Response was written in a language other than English.
- Response was completely off-task or off-topic.

- Response was an exact copy of the assignment.
- Student made a statement refusing to write a response to the question.

*Note: “Unreadable” responses were eventually resolved, whenever possible, by researching the actual answer booklet (electronic copy or hard copy, as needed).*

### **Scoring Procedures**

Scoring procedures for polytomous items used double-blind scoring. Double-blind scored items were scored independently by two scorers, whose scores were tracked for “interrater agreement.” (For further information on double-blind scoring and the interrater agreement, see Section 5.2.6 and Appendix G.) A small number of responses were scored as an Edit by the Content Specialist, and would have only received the one score. These responses would have included any responses sent back late and not included in the scoring window, any unusual response that was placed on hold for consultation with the SDE, or other responses that required special handling or attention by the Content Specialist.

### **5.2.4 Scorer Training**

Scorer training began with an introduction of the on-site scoring staff and an overview of the purpose and goals of the project (including discussion about the security, confidentiality, and proprietary nature of testing materials, scoring materials, and procedures).

Next, scorers thoroughly reviewed and discussed the rubric for each item to be scored.

Following review of an item’s rubric scorers reviewed or scored the particular response set (i.e., anchor sets, training sets, or qualifying sets) organized for that training. (These sets are defined in the following paragraphs.)

#### **Anchor Set**

Scorers first reviewed an anchor set of exemplary responses for an item. This is a set approved and provided by Oklahoma SDE. Responses in anchor sets are typical, rather than unusual or uncommon; solid, rather than controversial or borderline. There were separate anchor sets for each of the traits, and training of the anchor papers was done at the trait level. Responses were read aloud to the room of scorers in descending score order. Announcing the true score of each anchor response, trainers facilitated group discussion of responses in relation to score point descriptions to help scorers internalize the typical characteristics of score points.

This anchor set continued to serve as a reference for scorers as they went on to calibration, scoring, and recalibration activities for that item.

## **Training Set**

Next, scorers practiced applying the scoring guide and anchors to responses in the mixed training set. The training set is intended to mimic live scoring. As such, scorers assigned scores in each of the traits to each response. After scorers independently read and scored a training set response, trainers would poll scorers or use online training system reports to record their initial range of scores. Trainers then led a group discussion of the responses, directing scorers' attentions to difficult scoring issues (e.g., the borderline between two score points). Throughout the training, trainers modeled how to discuss scores by referring to the anchor set and to the rubric.

## **Qualifying Set**

After the training set had been completed, scorers were required to score responses accurately and reliably in qualifying sets. The 10 responses in each qualifying set were selected from an array of responses that clearly illustrated the range of score points for that item as reviewed and approved by the state specialists. The primary qualification set was provided by the SDE, based on previous usage. The second set, used for scorers who needed to be retrained, was selected from new responses, and was approved by the SDE prior to implementation.

To be eligible to live-score one of the above items, scorers were required to demonstrate scoring accuracy rates of at least 70% exact agreement and at least 90% exact or adjacent agreement. Scorers had to enter a score for each of the traits on each qualification paper. Scoring Team Leaders reviewed the results with scorers after qualification.

## **Retraining**

Scorers who did not pass the first qualifying set were retrained as a group by reviewing their performance with scoring leadership and then scoring a second qualifying set of responses. If they achieved the required accuracy rate on the second qualifying set, they were allowed to score operational responses.

Scorers who did not achieve the required scoring accuracy rates on the second qualifying set were not allowed to score responses for that item.

### **5.2.5 Leadership Training**

Scoring Supervisors were trained in a separate training session prior to scorer training. In addition to a discussion of the items and their responses, Scoring Supervisor training included greater detail on the client's rationale behind the score points than that covered with regular scorers to better equip them to handle questions from the scorers.

## 5.2.6 Monitoring of Scoring Quality Control

Scorers were constantly monitored for accuracy during the course of the project. Read-behind and double-blind statistics were reviewed daily. Recalibration sets were administered repeatedly during the course of the project. Scorers who demonstrated inaccurate or inconsistent scoring through these quality control measures were stopped from scoring. Their work for the day was voided and rescored by other qualified scorers. Scorers were retrained, and allowed to resume scoring. However, anyone who repeatedly demonstrated accuracy and consistency in scoring below standard would have been removed from the project.

Scorers were monitored for continued accuracy and consistency throughout the scoring process, using the following methods and tools (which are defined in this section):

- read-behind procedures
- double-blind scoring
- recalibration sets

It should be noted that any scorer whose accuracy rate fell below the expected rate for a particular item and monitoring method was retrained on that item. Upon approval by the Scoring Supervisor or Scoring Content Specialist as appropriate the scorer was allowed to resume scoring. Scorers who met or exceeded the expected accuracy rates continued scoring.

The use of multiple monitoring techniques is critical toward monitoring scorer accuracy during the process of live scoring. For OCCT writing Scoring, SDE staff members were in attendance in Menads NY to observe the first week of scoring. When student responses were found in which scoring leadership felt further clarification of how to apply the rubric was required, the Scoring Content Specialist consulted with SDE staff, either in person for the first week or through phone and email communications in subsequent weeks, to confirm or clarify Oklahoma's expectations on how to score these particular responses. The results of these discussions were conveyed to scorers during the course of scoring to ensure consistent application of the decisions.

### **Read-Behind Scoring Procedures**

Read-behind scoring refers to scoring leadership (usually a Scoring Team Leader) scoring a response after a scorer has already scored the response. The practice was applied to all writing prompts

Responses placed into the read-behind queue were randomly selected by scoring leadership; scorers were not aware which of their responses would be reviewed by their Scoring Team Leader. The iScore system allowed one, two, or three responses per scorer to be placed into the read-behind queue at a time.

The Scoring Team Leader entered his or her score into iScore before being allowed to see the scorer's score. The Scoring Team Leader then compared the two scores and the score of record (i.e., the reported score) was determined as follows:



- If there was exact agreement between the scores, no action was necessary; the regular scorer’s score remained.
- If the scores were adjacent (i.e., differed by one point), the Scoring Team Leader’s score became the score of record. (A significant number of adjacent scores for a scorer triggered an individual scoring consultation with the Scoring Team Leader, after which the Scoring Supervisor determined whether or when the scorer could resume scoring.)
- If the scores were discrepant (i.e., differed by more than one point), the Scoring Team Leader’s score became the score of record. (This triggered an individual consultation for the scorer with the Scoring Team Leader, after which the Scoring Supervisor determined whether or when the scorer could resume scoring on that item.)

Table 5-3 illustrates how scores were resolved by read-behind.

**Table 5-3. 2014–15 OCCT: Examples of Read-Behind Scoring Resolutions<sup>1</sup>**

<i>Scorer Score</i>	<i>Leadership Score</i>	<i>Final</i>
4-4-4-4-4	4-4-4-4-4	4-4-4-4-4
4-3-3-4-3	3-3-3-4-3	3-3-3-4-3
4-3-3-3-3	2-2-2-3-2	2-2-2-3-2

<sup>1</sup> In all cases, the Leadership score is the final score of record.

Team Leaders were tasked with conducting read-behinds on 10% of the total student population, with targets to distribute the read-behinds across all the scorers assigned to them. Scorers who hovered at the threshold of acceptable accuracy would have been targeted with more read-behinds than scorers who were consistently demonstrating high levels of accuracy. In addition to regular read-behinds, scoring leadership could choose to do read-behinds on any scorer at any point during the scoring process to gain an immediate, real-time “snapshot” of a scorer’s accuracy.

### **Double-Blind Scoring**

Double-blind scoring refers to two scorers independently scoring a response without knowing whether the response was to be double-blind scored. The practice was applied to all writing prompts. All writing prompts were scored with 100% double-blind scoring.

If there was a discrepancy (a difference greater than one score point) between double-blind scores, the response was placed into an arbitration queue. Arbitration responses were reviewed by scoring leadership (Scoring Team Leader or Scoring Supervisor) without knowledge of the two scorers’ scores. Scoring leadership assigned the final score. Scoring leadership consulted individually with any scorer whose scoring rate fell below the required accuracy rate, and the Scoring Supervisor determined whether or when the scorer could resume scoring on that item. Once the scorer was allowed to resume scoring, scoring leadership carefully monitored the scorer’s accuracy by increasing the number of read-behinds.

### Recalibration Sets

To determine whether scorers were still calibrated to the scoring standard, they were required to take an online recalibration set at the start of the day at various points during the scoring project.

Each recalibration set consisted of five responses representing the entire range of possible scores.

Any scorer who demonstrated difficulty was retrained before being allowed by the Scoring Supervisor to continue scoring. Once allowed to resume scoring, scoring leadership carefully monitored these scorers by increasing the number of read-behinds.

### Scoring Reports

Measured Progress's electronic scoring software, iScore, generated multiple reports that were used by scoring leadership to measure and monitor scorers for scoring accuracy, consistency, and productivity.

## 5.3 WRITING SCORING

Writing prompts were administered in spring 2015. Students in grades 5 and 8 responded to one operational writing prompt. The writing score is a weighted composite of five analytic scores that focus on specific domains of writing skills. These skills are listed in Table 5-4. Each student's response to a prompt is read by two independent raters; the raters' scores for each domain are averaged. The domain scores range from 1 (the lowest score) to 4 (the highest score).

**Table 5-4. 2014–15 OCCT: Writing Analytic Traits and Scoring Weights**

<i>Writing Analytic Traits</i>	<i>Weight</i>
Ideas and Development (ID)	30%
Organization, Unity, and Coherence (OUC)	25%
Word Choice (WC)	15%
Sentences and Paragraphs (SP)	15%
Grammar, usage, and Mechanics (GUM)	15%

The composite score (CS) is calculated as a weighted composite of the average of two independent ratings for each of the five analytic traits:

$$CS = 15(0.30ID + 0.25OUC + 0.15WC + 0.15SP + 0.15GUM)$$

2015 writing prompts were selected and modified from 2014 field-test items. To place 2015 writing prompts on a 2014 scale, an equipercentile-linking method was applied. Concordance tables from this method were applied to produce final 2015 operational scores.

## **5.4 ONLINE SCORING OF CBT (COMPUTER-BASED TESTS)**

Student item responses are compared to scoring keys using item analysis software. This robust software compares the student response of the item to the answer key and assigns a maximum score for correct responses (1 point) and incorrect answers are assigned 0 points. Student responses with blank item responses are also assigned 0 points. At the end of an administration, a second independent validation of all the student responses is conducted to compare and validate results to ensure accurate machine-scoring.

## CHAPTER 6 CLASSICAL ITEM ANALYSIS

As noted in Brown (1983), “A test is only as good as the items it contains.” A complete evaluation of a test’s quality must include an evaluation of each item. Both *Standards for Educational and Psychological Testing* (AERA et al., 2014) and *Code of Fair Testing Practices in Education* (2004) include standards for identifying quality items. Items should assess only knowledge or skills that are identified as part of the domain being tested and should avoid assessing irrelevant factors. Items should also be unambiguous and free of grammatical errors, potentially insensitive content or language, and other confounding characteristics. In addition, items must not unfairly disadvantage students in particular racial, ethnic, or gender groups.

Both qualitative and quantitative analyses are conducted to ensure that Oklahoma OCCT items meet these standards. Qualitative analyses are described in earlier chapters of this report; this chapter focuses on quantitative evaluations. Statistical evaluations are presented in four parts: 1) difficulty indices, 2) item-test correlations, 3) differential item functioning (DIF) statistics, and 4) dimensionality analyses. The item analyses presented here are based on the statewide administration of the Oklahoma OCCT in spring 2015. Note that the information presented in this chapter is based on the items common to all forms, since those are the items on which student scores are calculated. (Item analyses are also performed for field-test items, and the statistics are then used during the item review process and form assembly for future administrations.)

### 6.1 CLASSICAL DIFFICULTY AND DISCRIMINATION INDICES

All multiple-choice, constructed-response, and short-answer items are evaluated in terms of item difficulty according to standard classical test theory practices. Difficulty is defined as the average proportion of points achieved on an item and is measured by obtaining the average score on an item and dividing it by the maximum possible score for the item. Multiple-choice and short-answer items are scored dichotomously (correct vs. incorrect) so, for these items, the difficulty index is simply the proportion of students who correctly answered the item. Constructed-response items are scored polytomously, meaning that a student can achieve a score of 0, 1, 2, 3, or 4. By computing the difficulty index as the average proportion of points achieved, the indices for the different item types are placed on a similar scale, ranging from 0.0 to 1.0 regardless of the item type. Although this index is traditionally described as a measure of difficulty, it is properly interpreted as an *easiness* index, because larger values indicate easier items. An index of 0.0 indicates that all students received no credit for the item, and an index of 1.0 indicates that all students received full credit for the item.

Items that are answered correctly by almost all students provide little information about differences in student abilities, but they do indicate knowledge or skills that have been mastered by most students. Similarly, items that are correctly answered by very few students provide little information about differences in student abilities, but may indicate knowledge or skills that have not yet been mastered by most students. In general, to provide the best measurement, difficulty indices should range from near-chance performance (0.25 for four-

option multiple-choice items or essentially zero for constructed-response or short-answer items) to 0.90, with the majority of items generally falling between around 0.4 and 0.7. However, on a standards-referenced assessment such as the Oklahoma OCCT, it may be appropriate to include some items with very low or very high item difficulty values to ensure sufficient content coverage.

A desirable characteristic of an item is for higher-ability students to perform better on the item than lower-ability students do. The correlation between student performance on a single item and total test score is a commonly used measure of this characteristic of the item. Within classical test theory, the item-test correlation is referred to as the item’s discrimination, because it indicates the extent to which successful performance on an item discriminates between high and low scores on the test. For constructed-response items, the item discrimination index used was the Pearson product-moment correlation; for dichotomous items (multiple-choice and short-answer), the corresponding statistic is commonly referred to as a point-biserial correlation. The theoretical range of these statistics is  $-1.0$  to  $+1.0$ , with a typical observed range from 0.2 to 0.6.

Discrimination indices can be thought of as measures of how closely an item assesses the same knowledge and skills assessed by other items contributing to the criterion total score. That is, the discrimination index can be thought of as a measure of construct consistency.

A summary of the item difficulty and item discrimination statistics for each subject/grade combination is presented in Table 6-1. Note that the statistics are presented for all items as well as by item type (multiple-choice and open-response, which includes writing prompts). The mean difficulty and discrimination values shown in the table are within generally acceptable and expected ranges.

**Table 6-1. 2014–15 OCCT: Summary of Item Difficulty and Discrimination Statistics by Subject and Grade**

<i>Subject</i>	<i>Grade</i>	<i>Item Type</i>	<i>Number of Items</i>	<i>p-Value</i>		<i>Discrimination</i>	
				<i>Mean</i>	<i>Standard Deviation</i>	<i>Mean</i>	<i>Standard Deviation</i>
Mathematics	3	All	50	0.71	0.15	0.44	0.09
		MC	50	0.71	0.15	0.44	0.09
		OR	0	0.00	0.00	0.00	0.00
	4	All	50	0.75	0.10	0.41	0.06
		MC	50	0.75	0.10	0.41	0.06
		OR	0	0.00	0.00	0.00	0.00
	5	All	50	0.69	0.15	0.40	0.08
		MC	50	0.69	0.15	0.40	0.08
		OR	0	0.00	0.00	0.00	0.00
	6	All	50	0.62	0.16	0.38	0.08
		MC	50	0.62	0.16	0.38	0.08
		OR	0	0.00	0.00	0.00	0.00
	7	All	50	0.60	0.15	0.40	0.08
		MC	50	0.60	0.15	0.40	0.08
		OR	0	0.00	0.00	0.00	0.00

continued

Subject	Grade	Item Type	Number of Items	p-Value		Discrimination	
				Mean	Standard Deviation	Mean	Standard Deviation
Mathematics	8	All	50	0.53	0.14	0.36	0.09
		MC	50	0.53	0.14	0.36	0.09
		OR	0	0.00	0.00	0.00	0.00
Reading	3	All	50	0.69	0.14	0.38	0.09
		MC	50	0.69	0.14	0.38	0.09
		OR	0	0.00	0.00	0.00	0.00
	4	All	50	0.72	0.15	0.36	0.10
		MC	50	0.72	0.15	0.36	0.10
		OR	0	0.00	0.00	0.00	0.00
	5	All	50	0.71	0.13	0.40	0.09
		MC	50	0.71	0.13	0.40	0.09
		OR	0	0.00	0.00	0.00	0.00
6	All	50	0.68	0.15	0.36	0.10	
	MC	50	0.68	0.15	0.36	0.10	
	OR	0	0.00	0.00	0.00	0.00	
7	All	50	0.74	0.11	0.35	0.07	
	MC	50	0.74	0.11	0.35	0.07	
	OR	0	0.00	0.00	0.00	0.00	
8	All	50	0.75	0.16	0.36	0.09	
	MC	50	0.75	0.16	0.36	0.09	
	OR	0	0.00	0.00	0.00	0.00	
Writing	5	All	5	0.57	0.00	0.97	0.01
		MC	0	0.00	0.00	0.00	0.00
		OR	5	0.57	0.00	0.97	0.01
	8	All	5	0.62	0.01	0.97	0.01
		MC	0	0.00	0.00	0.00	0.00
		OR	5	0.62	0.01	0.97	0.01
Social Studies	5	All	50	0.59	0.11	0.35	0.08
		MC	50	0.59	0.11	0.35	0.08
		OR	0	0.00	0.00	0.00	0.00
Geography	7	All	49	0.53	0.12	0.31	0.09
		MC	49	0.53	0.12	0.31	0.09
		OR	0	0.00	0.00	0.00	0.00
U.S. History	8	All	50	0.64	0.13	0.35	0.10
		MC	50	0.64	0.13	0.35	0.10
		OR	0	0.00	0.00	0.00	0.00
Science	5	All	45	0.71	0.13	0.38	0.07
		MC	45	0.71	0.13	0.38	0.07
		OR	0	0.00	0.00	0.00	0.00
	8	All	45	0.66	0.17	0.34	0.08
		MC	45	0.66	0.17	0.34	0.08
		OR	0	0.00	0.00	0.00	0.00

MC = multiple-choice; OR = open-response

A comparison of indices across grade levels is complicated because these indices are population dependent. Direct comparisons would require that either the items or students were common across groups.

Since that is not the case, it cannot be determined whether differences in performance across grade levels are due to differences in student abilities, differences in item difficulties, or both. With this caveat in mind, it appears generally that, for mathematics and, to a lesser extent, science, students in higher grades found their items more difficult than students in lower grades found theirs, while in reading, the difficulty values are fairly constant across grades.

Comparing the difficulty indices of multiple-choice items and constructed-response or short-answer items is inappropriate because multiple-choice items can be answered correctly by guessing. Thus, it is not surprising that the difficulty indices for multiple-choice items tend to be higher (indicating that students performed better on these items) than the difficulty indices for constructed-response items. Similarly, discrimination indices for the four-point constructed-response items were larger than those for the dichotomous items due to the greater variability of the former (i.e., the partial credit these items allow) and the tendency for correlation coefficients to be higher given greater variances of the correlates.

In addition to the item difficulty and discrimination summaries presented above, item level classical statistics and item level score distributions were also calculated. Item level classical statistics are provided in Appendix H; item difficulty and discrimination values are presented for each item. The item difficulty and discrimination indices are within generally acceptable and expected ranges. Very few items were answered correctly at near-chance or near-perfect rates. Similarly, the positive discrimination indices indicate that students who performed well on individual items tended to perform well overall. There was a small number of items with near-zero discrimination indices, with only one negative item at -0.01. Item-level score-point distributions are provided for constructed-response items in Appendix I; for each item, the percentage of students who received each score point is presented.

## 6.2 DIF

*Code of Fair Testing Practices in Education* (2004) explicitly states that subgroup differences in performance should be examined when sample sizes permit and that actions should be taken to ensure that differences in performance are due to construct-relevant, rather than irrelevant, factors. *Standards for Educational and Psychological Testing* (AERA et al., 2014) includes similar guidelines. As part of the effort to identify such problems, Oklahoma OCCT items were evaluated in terms of DIF statistics.

For the Oklahoma OCCT, the standardization DIF procedure (Dorans & Kulick, 1986) was employed to evaluate subgroup differences. The standardization DIF procedure is designed to identify items for which subgroups of interest perform differently, beyond the impact of differences in overall achievement. The DIF procedure calculates the difference in item performance for two groups of students (at a time) matched for achievement on the total test. Specifically, average item performance is calculated for students at every total score. Then an overall average is calculated, weighting the total score distribution so that it is the same for the two groups.

When differential performance between two groups occurs on an item (i.e., a DIF index in the “low” or “high” categories, explained below), it may or may not be indicative of item bias. Course-taking patterns or differences in school curricula can lead to DIF but for construct-relevant reasons. On the other hand, if subgroup differences in performance could be traced to differential experience (such as geographical living conditions or access to technology), the inclusion of such items should be reconsidered.

Computed DIF indices have a theoretical range from -1.0 to 1.0 for multiple-choice and short-answer items, and the index is adjusted to the same scale for constructed-response items. Dorans and Holland (1993) suggested that index values between -0.05 and 0.05 should be considered negligible. The preponderance of Oklahoma OCCT items fell within this range. Dorans and Holland further stated that items with values between -0.10 and -0.05 and between 0.05 and 0.10 (i.e., “low” DIF) should be inspected to ensure that no possible effect is overlooked, and that items with values outside the [-0.10, 0.10] range (i.e., “high” DIF) are more unusual and should be examined very carefully.<sup>1</sup>

For the 2014–15 Oklahoma OCCT, 10 subgroup comparisons were evaluated for DIF:

- Male versus female
- White versus Native American
- White versus Hispanic
- White versus Black/African American
- White versus American Indian/Alaskan Native
- White versus Pacific Islander
- White versus Two or more races
- Non-ELL versus ELL
- Disability versus no disability
- Low income versus not low income

Other race/ethnicity groups (e.g., Asians or African Americans) were not analyzed using DIF procedures, because limited sample sizes would have inflated type I error rates. The tables in Appendix J present the number of items classified as either “low” or “high” DIF, overall and by group favored. Generally speaking, the number of high DIF items was quite low for most tests. Most tests had 0 items with high DIF, while the most any test had was 2 items.

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<sup>1</sup> It should be pointed out here that DIF for items is evaluated initially at the time of field-testing. If an item displays high DIF, it is flagged for review by a Measured Progress content specialist. The content specialist consults with the SDE to determine whether to include the flagged item in a future operational test administration.



## 6.3 DIMENSIONALITY ANALYSIS

Because tests are constructed with multiple content area subcategories and their associated knowledge and skills, the potential exists for a large number of dimensions being invoked beyond the common primary dimension. Generally, the subcategories are highly correlated with each other; therefore, the primary dimension they share typically explains an overwhelming majority of variance in test scores. In fact, the presence of just such a dominant primary dimension is the psychometric assumption that provides the foundation for the unidimensional IRT models that are used for calibrating, linking, scaling, and equating the 2014–15 OCCT test forms.

The purpose of dimensionality analyses is to investigate whether violation of the assumption of test unidimensionality is statistically detectable and, if so, (a) the degree to which unidimensionality is violated and (b) the nature of the multidimensionality. Findings from dimensionality analyses performed on the 2014–15 OCCT common items for mathematics, reading, and science are reported below. (Note: only common items were analyzed since they are used for score reporting.)

The dimensionality analyses were conducted using the nonparametric IRT-based methods DIMTEST (Stout, 1987; Stout, Froelich, & Gao, 2001) and DETECT (Zhang & Stout, 1999). Both of these methods use as their basic statistical building block the estimated average conditional covariances for item pairs. A conditional covariance is the covariance between two items conditioned on total score for the rest of the test, and the average conditional covariance is obtained by averaging over all possible conditioning scores. When a test is strictly unidimensional, all conditional covariances are expected to take on values within random noise of zero, indicating statistically independent item responses for examinees with equal expected scores. Nonzero conditional covariances are essentially violations of the principle of local independence, and local dependence implies multidimensionality. Thus, nonrandom patterns of positive and negative conditional covariances are indicative of multidimensionality.

DIMTEST is a hypothesis-testing procedure for detecting violations of local independence. The data are first randomly divided into a training sample and a cross-validation sample. Then an exploratory analysis of the conditional covariances is conducted on the training sample data to find the cluster of items that displays the greatest evidence of local dependence. The cross-validation sample is then used to test whether the conditional covariances of the selected cluster of items displays local dependence, conditioning on total score on the non-clustered items. The DIMTEST statistic follows a standard normal distribution under the null hypothesis of unidimensionality.

DETECT is an effect-size measure of multidimensionality. As with DIMTEST, the data are first randomly divided into a training sample and a cross-validation sample (these samples are drawn independent of those used with DIMTEST). The training sample is used to find a set of mutually exclusive and collectively exhaustive clusters of items that best fit a systematic pattern of positive conditional covariances for pairs of items from the same cluster and negative conditional covariances from different clusters. Next, the

clusters from the training sample are used with the cross-validation sample data to average the conditional covariances: within-cluster conditional covariances are summed, from this sum the between-cluster conditional covariances are subtracted, this difference is divided by the total number of item pairs, and this average is multiplied by 100 to yield an index of the average violation of local independence for an item pair. DETECT values less than 0.2 indicate very weak multidimensionality (or near unidimensionality), values of 0.2 to 0.4 weak to moderate multidimensionality, values of 0.4 to 1.0 moderate to strong multidimensionality, and values greater than 1.0 very strong multidimensionality.

DIMTEST and DETECT were applied to the 2014–15 OCCT. The data for each grade and content area were split into a training sample and a cross-validation sample as described above. Every grade/content area combination included at least 42,000 student examinees, so every training sample and cross-validation sample included at least 21,000 students. DIMTEST was then applied to every grade/content area combination. DETECT was applied to each dataset for which the DIMTEST null hypothesis was rejected in order to estimate the effect size of the multidimensionality.

Because of the large sample sizes for the Oklahoma tests, DIMTEST would be sensitive even to quite small violations of unidimensionality, and the null hypothesis was strongly rejected for every dataset with all p-values being less than 0.01, and most being less than 0.00005. Strong rejection of the null hypothesis of unidimensionality is not surprising because strict unidimensionality is an idealization that almost never holds exactly for a given dataset. Thus, it was important to use DETECT to estimate the effect size of the violations of local independence found by DIMTEST. Table 6-2 displays the multidimensional effect size estimates from DETECT.

**Table 6-2. 2014–15 OCCT: Multidimensionality Effect Sizes by Subject and Grade**

<i>Subject</i>	<i>Grade</i>	<i>Multidimensionality Effect Size</i>
		<i>2014-15</i>
Mathematics	3	0.22
	4	0.23
	5	0.15
	6	0.21
	7	0.16
	8	0.24
Reading	3	0.14
	4	0.13
	5	0.11
	6	0.11
	7	0.08
	8	0.09
Social Studies	5	0.12
Geography	7	0.11
U.S. History	8	0.10
Science	5	0.09
	8	0.11

All the DETECT values for 2014–15 indicated very weak to weak multidimensionality. The average DETECT values for the three content areas were 0.20 for Math, 0.11 for Reading, 0.11 for Social Studies, and 0.10 for Science. The values for mathematics tests tended to be a bit higher than the other subjects, potentially because of the reading content present in the items. A cursory review of the clusters did not reveal any indications of multidimensionality caused by unintended influences. A more thorough investigation employing experts in the substantive content of the test forms would be required to accurately identify the skills and knowledge areas associated with the clusters. In any case the violations of local independence from all such effects, as evidenced by the DETECT effect sizes, were very small and do not warrant any changes in test design or scoring.

# CHAPTER 7 ITEM RESPONSE THEORY SCALING AND EQUATING

In addition to the classical test theory item analyses previously described, the Oklahoma OCCT was analyzed according to item response theory (IRT) models. IRT analyses were first used to place all 2014–15 forms on the same scale, and then to equate the 2014–15 test to the previous year’s test. Details on the IRT calibration and equating procedures for the Oklahoma OCCT are described below.

## 7.1 IRT

All OCCT items were calibrated using IRT. IRT uses mathematical models to define a relationship between an unobserved measure of student performance, usually referred to as theta ( $\theta$ ), and the probability ( $p$ ) of getting a dichotomous item correct or of getting a particular score on a polytomous item. In IRT, it is assumed that all items are independent measures of the same construct (i.e., of the same  $\theta$ ). Another way to think of  $\theta$  is as a mathematical representation of the latent trait of interest. Several common IRT models are used to specify the relationship between  $\theta$  and  $p$  (Hambleton & van der Linden, 1997; Hambleton & Swaminathan, 1985). The process of determining the specific mathematical relationship between  $\theta$  and  $p$  is called item calibration. After items are calibrated, they are defined by a set of parameters that specify a nonlinear, monotonically increasing relationship between  $\theta$  and  $p$ . Once the item parameters are known, an estimate of  $\theta$  for each student can be calculated. This estimate,  $\hat{\theta}$ , is considered to be an estimate of the student’s true score or a general representation of student performance. It has characteristics that are preferable to those of raw scores for equating purposes.

For the 2014–15 OCCT tests, the three-parameter logistic (3PL) model was used for dichotomous items and the generalized partial credit model (GPCM) was used for polytomous items. The 3PL model for dichotomous items can be defined as

$$P_i(\theta_j) = c_i + (1 - c_i) \frac{\exp[Da_i(\theta_j - b_i)]}{1 + \exp[Da_i(\theta_j - b_i)]}, \quad (\text{Equation 1})$$

where  
 $i$  indexes the items,  
 $j$  indexes students,  
 $a$  represents item discrimination,  
 $b$  represents item difficulty,  
 $c$  is the pseudo guessing parameter, and  
 $D$  is a normalizing constant equal to 1.701.

For polytomous items, the generalized partial credit model can be defined as:

$$P_{jk}(\theta) = \frac{\exp \sum_{v=0}^k [Da_j(\theta - b_j + d_v)]}{\sum_{c=1}^m \exp \sum_{v=1}^c [Da_j(\theta - b_j + d_v)]}, \quad (\text{Equation 2})$$

where  
*j* indexes items,  
*k* indexes students,  
*a* represents item discrimination,  
*b* represents item difficulty,  
*d* represents category step parameter, and  
*D* is a normalizing constant equal to 1.0.

For more information about item calibration and determination, the reader is referred to Lord and Novick (1968), Hambleton and Swaminathan (1985), or Baker and Kim (2004).

## 7.2 ITEM RESPONSE RESULTS

PARSCALE v4.1 (Muraki & Bock, 1999) software was used to perform all IRT analyses for the Oklahoma OCCT. Each item occupied only one block in the calibration run, and the 1.701 normalizing constant was used for three-parameter logistic (3PL) items and 1.0 for the generalized partial credit model (GPCM) items. A default convergence criterion of 0.001 was used. The tables in Appendix K give the IRT item parameters of all dichotomous (multiple-choice and short-answer) and polytomous (constructed-response) items on the 2014–15 Oklahoma OCCT tests by subject and grade.

Appendix L provides the test characteristic curves (TCCs) and test information functions (TIFs). Note that since the item bank was inherited from another vendor, only the post-equated (Science, Social Studies, and U.S. History) item parameters and TCC/TIF graphs are displayed. In addition, Geography is included as it is a new assessment with recently set standards.

TCCs display the expected (average) raw score associated with each  $\theta_j$  value between -4.0 and 4.0. Mathematically, the TCC is computed by summing the item characteristic curves (ICCs) of all items that contribute to the raw score. The expected raw score at a given value of  $\theta_j$  is

$$E(X|\theta_j) = \sum_{i=1}^n P_i(1|\theta_j), \quad (\text{Equation 3})$$

where  
*i* indexes the items (and *n* is the number of items contributing to the raw score),  
*j* indexes students (here,  $\theta_j$  runs from -4 to 4), and  
*E*(*X* |  $\theta_j$ ) is the expected raw score for a student of ability  $\theta_j$ .

The expected raw score monotonically increases with  $\theta_j$ , consistent with the notion that students of high ability tend to earn higher raw scores than do students of low ability. Most TCCs are “S-shaped,” flatter at the ends of the distribution and steeper in the middle.

The TIF displays the amount of statistical information that the test provides at each value of  $\theta_j$ . Information functions depict test precision across the entire latent trait continuum. There is an inverse relationship between the information of a test and its standard error of measurement (SEM). For long tests, the SEM at a given  $\theta_j$  is approximately equal to the inverse of the square root of the statistical information at  $\theta_j$  (Hambleton, Swaminathan, & Rogers, 1991), as follows:

$$SEM(\theta_j) = \frac{1}{\sqrt{I(\theta_j)}}. \quad (\text{Equation 4})$$

Compared to the tails, TIFs are often higher near the middle of the distribution where most students are located and where most items are sensitive by design.

## 7.3 EQUATING

### 7.3.1 Equating Design

The Measured Progress psychometrics team has researched and conducted a wide variety of equating approaches. Because the OCCT assessments will be using (IRT) as the underlying statistical model, the equating is best accomplished using IRT methods. Generally, IRT equating methods fall under two broad categories: post-equated and pre-equated. There are a variety of approaches within each of these two categories. Post-equated approaches have the advantage of greater accuracy and precision. The accuracy is likely to be greater because post-equating can correct for item parameter drift; and the precision is greater because the item parameter estimates are based on the large sample sizes of the operational administration, rather than on the smaller field-test sample sizes often associated with pre-equating. In pre-equating designs, greater care must be taken to keep item parameter drift to a bare minimum since there is no chance to correct for it at the time of the scoring and reporting of the operational test results. However, the advantage of pre-equating is the faster reporting of student scores because the IRT model relies on the item parameters from previous administrations of the items.

For any equating design, it is critical that rigorous procedures are implemented to monitor the quality of the equating and check that the assumptions underlying the equating are not violated. Measured Progress psychometricians have conducted research studies (Parker et al., 2009; Hagge & Keller, 2009; Keller et al., 2008; Keller et al., 2007) in this regard and have developed tools to estimate equating error across years under realistic violations of the equating assumptions. We can, thus, monitor particular well-known violations of IRT equating assumptions and use our research to estimate their effects on the reliability and validity of the equating. Additionally, we analyze the equating data in detail for scale drift through traditional delta analyses and *b-b* analyses. The delta analysis converts *p*-values to a type of *z*-score called delta scores using the inverse of the normal cumulative function, followed by a linear transformation to a metric with a mean of 13 and a

standard deviation of 4. The delta analysis then compares the old delta to the new delta using linear regression analysis. A standardized perpendicular difference from the regression line is calculated for each item, and any item with a difference of a magnitude of 3 or greater is flagged for drift. The *b-b* analyses are similar in nature, with the main difference being that the IRT *b*-parameters are used rather than transformed *p*-values.

Furthermore, we have special procedures in place during the calibration phase to check that the quality of the equating items is maintained consistently across years. Equating items that display lack of stability are flagged and removed from equating usage.

For the OCCT tests:

- Reading, Mathematics, and Writing used the item pre-equating method.
- Science, Social Studies, and U.S. History used the anchor-test-nonequivalent-groups post-equating design.
- Geography was a new assessment and no equating was necessary.

### **7.3.1.1 PRE-EQUATING**

The OCCT Reading, Mathematics, and Writing used the item pre-equating method as described in Kolen and Brennan (2014). Item pre-equating allows the raw-to-scale score conversion to be produced before the form is administered, which in turn allows for faster reporting and turnaround times. In item pre-equating, new forms are built from a pool of preexisting IRT-calibrated items. In addition to these operational items, new nonoperational items can also be included on the forms. The operational items are then used as a set of common items for transforming the item parameters of the nonoperational items so that they are the same scale as the IRT-calibrated item pool. This allows for the item pool to be expanded continually.

However, with pre-equating there are a number of cautions that need to be taken into consideration. Kolen and Brennan (2014) state that in order to ensure that items behave the same on each administration the items should appear in the same contexts and positions operationally as they did nonoperationally. Thus, care must be taken to avoid significant shifts in position and context. Any drift must be carefully monitored and controlled to ensure comparability between forms of the test. In addition, the presence of multidimensionality can be problematic when bringing new items on scale, so dimensionality needs to be carefully monitored as well (see Section 6.3). Chapter 10 describes our scale validation, post-equated check procedures, and results of our pre-equating methodology.

Item parameters for 2014–15 administration were inherited from a previous vendor. Also, no new items were included on the 2014–15 forms. As such, no new calibrations were run for the item pre-equated tests. Raw score to scale score look-ups are displayed in Appendix M.

### 7.3.1.2 POST-EQUATING

Equating for the Oklahoma OCCT Science, Social Studies, and U.S. History tests used the anchor-test-nonequivalent-groups design described by Petersen, Kolen, and Hoover (1989). In this equating design, no assumption is made about the equivalence of the examinee groups taking different test forms (i.e., naturally occurring groups are assumed). IRT is particularly useful for equating nonequivalent groups (Allen & Yen, 1979). The fixed common-item IRT procedure was used: The anchor items from the previous year’s administration were identified during this year’s calibrations, and their IRT parameters were fixed to last year’s values. This method results in all person and item parameters being on the same  $\theta$  scale as they were in the previous year. The procedures used for equating and scaling do not change the rank ordering of students, give more weight to particular items, or change students’ performance-level classifications.

Item parameter estimates for the 2014–15 Oklahoma OCCT Science, Social Studies, and U.S. History tests were placed on the 2013–14 scale by using the method of Stocking and Lord (1983), which is based on the IRT principle of item parameter invariance. According to this principle, the equating items for both the 2013–14 and 2014–15 OCCT tests should have the same item parameters. After the item parameters for each 2014–15 test were estimated using PARSCALE (Muraki & Bock, 2003), the Stocking and Lord method was employed to find the linear transformation (slope and intercept) that adjusted the equating items’ parameter estimates such that the 2014–15 OCCT tests’ TCC for the equating items was as close as possible to that of the 2013–14 OCCT tests.

## 7.4 EQUATING RESULTS

An Equating Report was submitted to the SDE for its approval prior to production of student reports. The equating report details the results of a variety of quality-control activities that were implemented within the Psychometrics and Research Department during IRT calibration and equating, including examining  $b$  plots and TCCs and conducting delta and rescore analyses. The evaluations of the equating results are summarized below.

The number of Newton cycles required for convergence for each subject and grade during the IRT analysis can be found in Table 7-1. The number of cycles required in order for the solution to converge fell within acceptable ranges.

**Table 7-1. 2014–15 OCCT: Number of Cycles Required for Convergence**

<i>Subject</i>	<i>Grade</i>	<i>Cycles</i>
Social Studies	5	43
U.S History	8	124
Science	5	29
	8	29



Appendix N presents the results from the delta analysis. This procedure was used to evaluate the performance of equating items, and the discard status presented in the appendix indicates whether the item was used in equating. As can be seen in the appendix, none of the items were identified as problematic based on the results of the delta analyses or needed to be excluded from use in equating.

Also,  $\alpha$ -plots and b-plots for the post-equated assessments, which show IRT parameters for 2014–15 plotted against the values for 2013–14, are presented in Appendix O. No items were identified as outliers in the b-b plot and were removed as equating items.

Table 7-2 below shows all items that required intervention during IRT calibration and equating. As can be seen in the table, all items on the watch list were identified as a result of the delta analyses. In all cases, the identified item was excluded from use in equating. One common issue with 3PL models is related to the c-parameter estimation (commonly referred to as the pseudo-guessing parameter). At times, 3PL estimation can lead to less than optimal solutions (or no solution) which in turn can result in unstable parameter estimates (or no estimate). In these cases, this problem can be solved by fixing the c-parameter to zero which effectively makes the model 2PL.

**Table 7-2. 2014-15 OCCT: Items That Required Intervention During IRT Calibration and Equating**

<i>Subject</i>	<i>Grade</i>	<i>Item Number</i>	<i>Reasons</i>	<i>Action</i>
Social Studies	5	151820A	c-parameter	set c = 0
U.S. History	8	151972A	c-parameter	set c = 0
		151973A	c-parameter	set c = 0
Science	5	154261A	c-parameter	set c = 0
	8	154184A	c-parameter	set c = 0
		154191A	c-parameter	set c = 0

The Stocking and Lord (1983) procedure was used to transform parameter estimates onto the operational scale. This procedure results in constants that were applied to the resulting IRT parameters for each grade/content. These transformation constants were found using the STUIRT program, which can be found at the CASMA website: <http://www.education.uiowa.edu/casma/>. The Stocking and Lord transformation constants that were used in the equating process are listed below in Table 7-3:

**Table 7-3. 2014–15 OCCT: Stocking and Lord Constants**

<i>Subject</i>	<i>Grade</i>	<i>Slope</i>	<i>Intercept</i>
Science	5	66.825	698.417
	8	45.390	706.300
Social Studies	5	60.236	716.970
U.S. History	8	61.735	701.346

## 7.5 ACHIEVEMENT STANDARDS

Cutpoints for the Oklahoma OCCT were set recently at standard setting meetings for Science and Writing in Summer 2013, for Social Studies and U.S. History in Summer 2014, and for Geography in Summer 2015, with Mathematics and Reading set in previous years. Details of the standard setting procedures can be found in the standard setting reports and technical reports of those years. The cuts on the theta scale that were established at those meetings are presented in Table 7-4 below. The  $\theta$  metric cut scores that emerged from the standard setting meetings will remain fixed throughout the assessment program unless standards are reset for any reason. Also shown in the table are the cutpoints on the reporting score scale (described below).

**Table 7-4. 2014–15 OCCT: Cut Scores on the Theta metric and Reporting Scale by Subject and Grade**

Subject	Grade	Scaled Score				
		Minimum	Cut 1	Cut 2	Cut 3	Maximum
Mathematics	3	400	633	700	798	990
	4	400	639	700	805	990
	5	400	638	700	791	990
	6	400	664	700	795	990
	7	400	674	700	800	990
	8	400	642	700	774	990
Reading	3	400	649	700	891	990
	4	400	658	700	845	990
	5	400	641	700	830	990
	6	400	647	700	828	990
	7	400	668	700	802	990
	8	400	655	700	833	990
Writing	5	15	23	36	48	60
	8	15	25	36	50	60
Social Studies	5	400	639	680	732	990
Geography	7	400	608	660	727	990
U.S. History	8	400	634	681	736	990
Science	5	400	648	700	765	990
	8	400	658	700	751	990

### 7.5.1 Score Distributions

Table Q-1 in Appendix Q shows performance level distributions for 2014–15 by subject and grade.

## 7.6 SCALED SCORES

Oklahoma OCCT scores in each content area and grade are reported on a scale ranging from 400 to 990 (15 to 60 for Writing). By providing information that is more specific about the position of a student's results, scaled scores supplement performance-level scores. School- and district-level scaled scores are calculated by computing the average of student-level scaled scores. Students' raw scores (i.e., total number of points) on the 2014–15 Oklahoma OCCT were translated to scaled scores using a data analysis process called *scaling*. Scaling simply converts from one scale to another. In the same way that a given temperature can be expressed on either Fahrenheit or Celsius scales, or the same distance can be expressed in either miles or kilometers, student scores on the 2014–15 Oklahoma OCCT tests can be expressed in raw or scaled scores.

It is important to note that converting from raw scores to scaled scores does not change students' performance-level classifications. Given the relative simplicity of raw scores, it is fair to ask why scaled scores instead of raw scores are used in Oklahoma OCCT reports. Foremost, scaled scores offer the advantage of simplifying result reporting across content areas and subsequent years. Because the standard setting process typically results in different cut scores across content areas on a raw score basis, it is useful to transform these raw cut scores to a scale that is more easily interpretable and consistent. For the Oklahoma OCCT, a score of 700 is the cut score determining proficiency. This is true regardless of content area or year. Note that the proficiency cut for Social Studies, U.S. History, and Geography are temporarily lower due to the usage of transitional cuts implemented since the recent standard setting meetings. In future years, these transitional cuts will be adjusted upward such that a proficiency cut of 700 exists. Using scaled scores greatly simplifies the task of understanding how a student performed. The raw score to scaled score look-up tables for each content area are presented in Appendix M. Graphs of the scaled score cumulative frequency distributions for 2015 are presented in Appendix R.

## CHAPTER 8 RELIABILITY

Although an individual item's performance is an important focus for evaluation, a complete evaluation of an assessment must also address the way items function together and complement one another. Tests that function well provide a dependable assessment of the student's level of ability. Unfortunately, no test can do this perfectly. A variety of factors can contribute to a given student's score being either higher or lower than his or her true ability. For example, a student may misread an item, or mistakenly fill in the wrong bubble when he or she knew the answer. Collectively, extraneous factors that impact a student's score are referred to as measurement error. Any assessment includes some amount of measurement error; that is, no measurement is perfect. This is true of all academic assessments—some students will receive scores that underestimate their true ability, and other students will receive scores that overestimate their true ability. When tests have a high amount of measurement error, student scores are very unstable. Students with high ability may get low scores or vice versa. Consequently, one cannot reliably measure a student's true level of ability with such a test. Assessments that have less measurement error (i.e., errors made are small on average and student scores on such a test will consistently represent their ability) are described as reliable.

There are a number of ways to estimate an assessment's reliability. One possible approach is to give the same test to the same students at two different points in time. If students receive the same scores on each test, then the extraneous factors affecting performance are small and the test is reliable. (This is referred to as "test-retest reliability.") A potential problem with this approach is that students may remember items from the first administration or may have gained (or lost) knowledge or skills in the interim between the two administrations. A solution to the "remembering items" problem is to give a different but parallel test at the second administration. If student scores on each test correlate highly the test is considered reliable. (This is known as "alternate forms reliability," because an alternate form of the test is used in each administration.) This approach, however, does not address the problem that students may have gained (or lost) knowledge or skills in the interim between the two administrations. In addition, the practical challenges of developing and administering parallel forms generally preclude the use of parallel forms reliability indices. One way to address the latter problems is to split the test in half and then correlate students' scores on the two half-tests; this in effect treats each half-test as a complete test. By doing this, the problems associated with an intervening time interval and of creating and administering two parallel forms of the test are alleviated. This is known as a "split-half estimate of reliability." If the two half-test scores correlate highly, items on the two half-tests must be measuring very similar knowledge or skills. This is evidence that the items complement one another and function well as a group. This also suggests that measurement error will be minimal.

The split-half method requires psychometricians to select items that contribute to each half-test score. This decision may have an impact on the resulting correlation, since each different possible split of the test halves will result in a different correlation. Another problem with the split-half method of calculating reliability is that it underestimates reliability, because test length is cut in half. All else being equal, a shorter

test is less reliable than a longer test. Cronbach (1951) provided a statistic,  $\alpha$  (alpha), which eliminates the problem of the split-half method by comparing individual item variances to total test variance. Cronbach's  $\alpha$  was used to assess the reliability of the 2014–15 Oklahoma OCCT:

$$\alpha \equiv \frac{n}{n-1} \left[ 1 - \frac{\sum_{i=1}^n \sigma_{(Y_i)}^2}{\sigma_x^2} \right], \quad (\text{Equation 6})$$

where  
*i* indexes the item,  
*n* is the total number of items,  
 $\sigma_{(Y_i)}^2$  represents individual item variance, and  
 $\sigma_x^2$  represents the total test variance.

## 8.1 RELIABILITY AND STANDARD ERRORS OF MEASUREMENT

Table 8-1 presents descriptive statistics, Cronbach's  $\alpha$  coefficient, and raw score standard errors of measurement (SEMs) for each content area and grade. (Statistics are based on common items only.)

**Table 8-1. 2014–15 OCCT: Raw Score Descriptive Statistics, Cronbach's Alpha and Standard Errors of Measurement (SEM) by Subject and Grade**

Subject	Grade	Number of Students	Raw Score			Alpha	SEM
			Maximum	Mean	Standard Deviation		
Mathematics	3	51,306	50	35.39	10.28	0.93	2.70
	4	46,661	50	37.31	9.37	0.92	2.72
	5	48,502	50	34.52	9.66	0.92	2.80
	6	48,163	50	31.05	9.69	0.91	2.98
	7	46,635	50	30.23	10.19	0.91	3.00
	8	36,737	50	26.69	9.70	0.90	3.13
Reading	3	51,145	50	34.20	9.26	0.90	2.87
	4	46,455	50	36.10	8.27	0.89	2.77
	5	48,325	50	35.56	9.39	0.91	2.79
	6	44,222	50	34.07	8.61	0.89	2.90
	7	45,085	50	36.98	8.25	0.89	2.79
	8	44,093	50	37.48	7.81	0.88	2.65
Science	5	48,451	45	31.78	8.19	0.89	2.70
	8	47,297	45	29.85	7.73	0.87	2.77
Social Studies	5	48,447	50	29.29	9.49	0.89	3.15
Geography	7	47,503	49	26.14	8.55	0.86	3.20
U.S. History	8	47,247	50	31.94	9.07	0.89	3.04
Writing	5	48,192	60	34.35	10.63	0.99	1.06
	8	47,160	60	37.07	11.67	0.99	1.09

For Mathematics, the reliability coefficients ranged from 0.90 to 0.93; for Reading, from 0.88 to 0.91; and for Science & Social Studies subjects, from 0.86 to 0.89. Because different grades and content areas have

different test designs (e.g., the number of items varies by test), it is inappropriate to make inferences about the quality of one test by comparing its reliability to that of another test from a different grade and/or content area.

## **8.2 SUBGROUP RELIABILITY**

The reliability coefficients discussed in the previous section were based on the overall population of students who took the 2014–15 Oklahoma OCCT. Appendix S presents reliabilities for various subgroups of interest. Subgroup Cronbach’s  $\alpha$ ’s were calculated using the formula defined above based only on the members of the subgroup in question in the computations; values are only calculated for subgroups with 10 or more students.

For several reasons, the results of this section should be interpreted with caution. First, inherent differences between grades and content areas preclude making valid inferences about the quality of a test based on statistical comparisons with other tests. Second, reliabilities are dependent not only on the measurement properties of a test but on the statistical distribution of the studied subgroup. For example, it can be readily seen in Appendix S that subgroup sample sizes may vary considerably, which results in natural variation in reliability coefficients. Or  $\alpha$ , which is a type of correlation coefficient, may be artificially depressed for subgroups with little variability (Draper & Smith, 1998). Third, there is no industry standard to interpret the strength of a reliability coefficient, and this is particularly true when the population of interest is a single subgroup.

## **8.3 SUBCATEGORY RELIABILITY**

Of even more interest are reliabilities for the reporting subcategories within Oklahoma OCCT content areas, described in Chapter 3. Cronbach’s  $\alpha$  coefficients for subcategories were calculated via the same formula defined previously using just the items of a given subcategory in the computations. Results are presented in Appendix S. Once again as expected, because they are based on a subset of items rather than the full test, computed subcategory reliabilities were lower (sometimes substantially so) than were overall test reliabilities, and interpretations should take this into account.

Since the number of items in the subcategories ranged from 1 to 24 across subjects, as expected there is a large amount of variability across reporting categories. The subcategory reliabilities were lower than those based on the total test and approximately to the degree one would expect based on classical test theory. Qualitative differences between grades and content areas once again preclude valid inferences about the quality of the full test based on statistical comparisons among subtests.

## 8.4 INTERRATER CONSISTENCY

Chapter 5 of this report describes in detail the processes that were implemented to monitor the quality of the hand-scoring of student responses for short-answer and constructed-response items. One of these processes was double-blind scoring: Approximately 2% of student responses were randomly selected and scored independently by two different scorers. Results of the double-blind scoring were used during scoring to identify scorers who required retraining or other intervention and are presented here as evidence of the reliability of the Oklahoma OCCT. A summary of the interrater consistency results are presented in Table 8-2 below. Results in the table are collapsed across the hand-scored items by grade. The table shows the number of included scores, the percent exact agreement, percent adjacent agreement, correlation between the first two sets of scores, and the percent of responses that required a third score. This same information is provided at the item level in Appendix G.

**Table 8-2. 2014–15 OCCT: Summary of Interrater Consistency Statistics  
Collapsed Across Items by Subject and Grade**

<i>Subject</i>	<i>Grade</i>	<i>Number of</i>		<i>Percent</i>		<i>Correlation</i>	<i>Percent of Third Scores</i>
		<i>Score Categories</i>	<i>Included Scores</i>	<i>Exact</i>	<i>Adjacent</i>		
Writing	5	5	236,920	62.98	35.77	0.63	0.99
	8	5	231,785	61.78	36.51	0.67	1.23

## 8.5 RELIABILITY OF ACHIEVEMENT LEVEL CATEGORIZATION

While related to reliability, the accuracy and consistency of classifying students into performance categories are even more important statistics in a standards-based reporting framework (Livingston & Lewis, 1995). After the performance levels were specified and students were classified into those levels, empirical analyses were conducted to determine the statistical accuracy and consistency of the classifications. For the Oklahoma OCCT, students are classified into one of four performance levels: Unsatisfactory (U), Limited Knowledge (LK), Proficient (P), or Advanced (A). This section of the report explains the methodologies used to assess the reliability of classification decisions, and results are given.

Accuracy refers to the extent to which decisions based on test scores match decisions that would have been made if the scores did not contain any measurement error. Accuracy must be estimated, because errorless test scores do not exist. Consistency measures the extent to which classification decisions based on test scores match the decisions based on scores from a second, parallel form of the same test. Consistency can be evaluated directly from actual responses to test items if two complete and parallel forms of the test are given to the same group of students. In operational test programs, however, such a design is usually impractical. Instead, techniques have been developed to estimate both the accuracy and consistency of classification decisions based on a single administration of a test. The Livingston and Lewis (1995) technique

was used for the 2014–15 Oklahoma OCCT because it is easily adaptable to all types of testing formats, including mixed format tests.

The accuracy and consistency estimates reported in Appendix T make use of “true scores” in the classical test theory sense. A true score is the score that would be obtained if a test had no measurement error. Of course, true scores cannot be observed and so must be estimated. In the Livingston and Lewis (1995) method, estimated true scores are used to categorize students into their “true” classifications.

For the 2014–15 Oklahoma OCCT, after various technical adjustments (described in Livingston & Lewis, 1995), a four-by-four contingency table of accuracy was created for each content area and grade, where cell  $[i, j]$  represented the estimated proportion of students whose true score fell into classification  $i$  (where  $i = 1$  to 4) and observed score into classification  $j$  (where  $j = 1$  to 4). The sum of the diagonal entries (i.e., the proportion of students whose true and observed classifications matched) signified overall accuracy.

To calculate consistency, true scores were used to estimate the joint distribution of classifications on two independent, parallel test forms. Following statistical adjustments per Livingston and Lewis (1995), a new four-by-four contingency table was created for each content area and grade and populated by the proportion of students who would be categorized into each combination of classifications according to the two (hypothetical) parallel test forms. Cell  $[i, j]$  of this table represented the estimated proportion of students whose observed score on the first form would fall into classification  $i$  (where  $i = 1$  to 4) and whose observed score on the second form would fall into classification  $j$  (where  $j = 1$  to 4). The sum of the diagonal entries (i.e., the proportion of students categorized by the two forms into exactly the same classification) signified overall consistency.

Another way to measure consistency is to use Cohen’s (1960) coefficient  $\kappa$  (kappa), which assesses the proportion of consistent classifications after removing the proportion of consistent classifications that would be expected by chance. It is calculated using the following formula:

$$\kappa = \frac{(\text{Observed agreement}) - (\text{Chance agreement})}{1 - (\text{Chance agreement})} = \frac{\sum_i C_{ii} - \sum_i C_i C_i}{1 - \sum_i C_i C_i}, \quad (\text{Equation 7})$$

where

$C_i$  is the proportion of students whose observed performance level would be Level  $i$  (where  $i = 1-4$ ) on the first hypothetical parallel form of the test;

$C_i$  is the proportion of students whose observed performance level would be Level  $i$  (where  $i = 1-4$ ) on the second hypothetical parallel form of the test; and

$C_{ii}$  is the proportion of students whose observed performance level would be Level  $i$  (where  $i = 1-4$ ) on both hypothetical parallel forms of the test.

Because  $\kappa$  is corrected for chance, its values are lower than are other consistency estimates.

### 8.5.1 Accuracy and Consistency

The accuracy and consistency analyses described above are provided in Table T-1 of Appendix T. The table includes overall accuracy and consistency indices, including kappa. Accuracy and consistency



values conditional upon performance level are also given. For these calculations, the denominator is the proportion of students associated with a given performance level. For example, the conditional accuracy value is 0.78 for Proficient for Mathematics grade 3. This figure indicates that among the students whose true scores placed them in this classification, 78 percent would be expected to be in this classification when categorized according to their observed scores. Similarly, a consistency value of 0.71 indicates that 71 percent of students with observed scores in the Novice level would be expected to score in this classification again if a second, parallel test form were used.

For some testing situations, the greatest concern may be decisions around level thresholds. For example, if a college gave credit to students who achieved an Advanced Placement test score of 4 or 5, but not to students with scores of 1, 2, or 3, one might be interested in the accuracy of the dichotomous decision below-4 versus 4-or-above. For the 2014–15 Oklahoma OCCT, Table T-2 in Appendix T provides accuracy and consistency estimates at each cutpoint as well as false positive and false negative decision rates. (A false positive is the proportion of students whose observed scores were above the cut and whose true scores were below the cut. A false negative is the proportion of students whose observed scores were below the cut and whose true scores were above the cut.)

The above indices are derived from Livingston and Lewis’s (1995) method of estimating the accuracy and consistency of classifications. It should be noted that Livingston and Lewis discuss two versions of the accuracy and consistency tables. A standard version performs calculations for forms parallel to the form taken. An “adjusted” version adjusts the results of one form to match the observed score distribution obtained in the data. The tables use the standard version for two reasons: (1) this “unadjusted” version can be considered a smoothing of the data, thereby decreasing the variability of the results; and (2) for results dealing with the consistency of two parallel forms, the unadjusted tables are symmetrical, indicating that the two parallel forms have the same statistical properties. This second reason is consistent with the notion of forms that are parallel; that is, it is more intuitive and interpretable for two parallel forms to have the same statistical distribution.

Descriptive statistics relating to the decision accuracy and consistency (DAC) of the 2014–15 Oklahoma OCCT tests can be derived from Table T-1. Note that, as with other methods of evaluating reliability, DAC statistics calculated based on small groups can be expected to be lower than those calculated based on larger groups. For this reason, the values presented in Appendix T should be interpreted with caution. In addition, it is important to remember that it is inappropriate to compare DAC statistics between grades and content areas.

## CHAPTER 9 SCORE REPORTING

The Oklahoma OCCT is designed to measure student performance against Oklahoma’s content standards. Consistent with this purpose, results on the OCCT were reported in terms of performance levels that describe student performance in relation to these established state standards. There are four performance levels: Unsatisfactory, Limited Knowledge, Proficient, and Advanced. Students receive a separate performance level classification (based on total scaled score) in each content area.

The OCCT is administered in both online and paper formats. In grades 3, 4, and 5 all tests are in paper format only. In grades 6, 7, and 8 the reading and mathematics tests are primarily online with paper as an accommodation option. The science, social studies, and writing tests are only offered in paper.

Reports are generated at the student, school, and district levels. Student results labels and student reports are printed and mailed to the districts for distribution to the schools. Additional static summary reports and student rosters are created as PDF files and stored on CDs for distribution to the schools and districts. In addition to the static and paper reports, an online reporting tool is provided for school, district, and state users to dynamically generate their own reports and review the student and summary results of each test. The details of each report are presented in the sections that follow. Samples of the reports are included in Appendix U.

### 9.1 DECISION RULES

To ensure that reported results for the Oklahoma OCCT are accurate relative to collected data and other pertinent information, a document delineating decision rules is prepared prior to each reporting cycle. The decision rules are observed in the analyses of Oklahoma OCCT test data and in reporting content area results. These rules also guide data analysts in identifying students to be excluded from school-, district-, and state-level summary computations. Copies of the decision rules are included in Appendix V.

### 9.2 STATIC REPORTS

The following reporting deliverables were produced for the Oklahoma tests:

- Student Report
- Student Results Label
- School and District Summary Report
- Class Summary Report
- Student Roster by Student Name
- Student Roster by Score

- eMetric Data Interaction Online Reporting Tool

The student report and student results labels were printed and shipped to the school districts for distribution to the schools. The rest of the reports were stored as PDF files and copied onto CDs for each school and district. In addition to the reports on CDs, the school, district, and state users also had access to the eMetric Data Interaction reporting tool. Each of these reporting deliverables is described in the following sections. Sample reports are provided in Appendix U.

### **9.2.1 Student Report**

The student report created for each student is a double sided report that provides scaled score, performance level, and reporting category results for each tested content area. Each student receives a separate report for each required content area. The first page of the report provides student demographics and the overall performance results. The back page contains raw score information on the content area reporting categories. There are two printed copies of the report: one for the parent and one for the school.

The front page of the report provides the following identifying demographics about the student:

- Student name
- Date of birth
- Student ID
- Grade
- District name
- School name

The middle section of the front page includes a description of the purpose of the OCCT. Following the description is a graphical display of the student's scaled score and the earned performance level. Next to the graphical display is a statement about how to interpret the test scores as well as the possible range of scaled scores if the test were taken multiple times.

The bottom section of the front page provides the performance level descriptors and range of scores for each of the four performance levels as well as an indicator of the level earned by the student.

The back page repeats the student demographics information from the front page header, and then leads into a summary of the performance on the standards and objectives of the content area. A description of each standard and the associated objectives is provided along with the following data:

- Number of possible points
- Number of points earned
- Percent of points earned
- Graphical display of the percent of points earned

If there are not enough items in a standard or objective to report a reliable score, the data are suppressed and NR is printed on the report.

### **9.2.2 Summary Reports**

A student results label is generated for each student. Each student label is two by four inches and provides the following student information:

- Student Name
- Student Identification Number
- Date of Birth
- Gender
- Grade

The label provides the scaled score and performance level for all tested content areas for the grade level. If a student did not earn a scaled score, the reason the student was not tested is reported.

### **9.2.3 School and District Summary Reports**

The school and district summary report is generated for each content area tested and consists of three different reports:

1. Summary Counts of Total Tested
2. Disaggregated Group Results by Performance Level
3. Disaggregated Group Results by Standards and Objectives

The Summary Counts of Total Tested report provides the number of students enrolled, the number of students who tested, and a breakdown by reason of the number of students who did not participate. A summary of the test mode is also provided: online, paper, or braille. These numbers are provided for all students and broken out by type of test: regular or equivalent.

The Disaggregated Group Results by Performance Level report provides the number of valid scores and the number and percent of students in each performance level for key demographic groups. Students are broken out into three groups: all students, regular education, and special population. For each of these groups, the results are further summarized by Full Academic Year status: FAY, NFAY, and Total Tested (FAY and NFAY).

The Disaggregated Group Results by Standards and Objectives report provides the number of valid scores and the mean percent correct for each standard and associated objective in the content area for key demographic groups. If there are not enough points in a category, the mean percentage is replaced with NR.

## 9.2.4 Class Summary Report

The Class Summary Report is generated for each class name within a school that participated in the content area. The top section of the front page includes a description of the purpose of the report. Following the description is graphical display of the class performance level distribution along with the number of students in each level and the mean OPI score.

The bottom section of the front page provides the performance level descriptors and range of scores for each of the four performance levels.

The back page provides a summary of the performance on the standards and objectives of the content area. A description of each standard and the associated objectives is provided along with the following data:

- Number of possible points
- Mean percent correct
- Graphical display of the mean percent correct

If there are not enough items in a standard or objective to report a reliable score, the data are suppressed and NR is printed on the report.

## 9.2.5 Student Roster by Student Name

The Student Roster by Student Name is run at the school and class level for each content area. The report lists all students in either the school or class, and provides the following demographics on each student:

1. Student name
2. State student ID
3. Date of birth
4. Gender

Each student is presented in alphabetical order as a row on the page with columns for the various score information:

1. Performance level
2. OPI score
3. Raw score
4. Percent correct for each Standard or Objective

If a student did not earn a score on a test, a no score code is printed in the Performance level column. A condition code column is used to capture additional information about the student: Full Academic Year status and Other Placement status.

### **9.2.6 Student Roster by Score**

The Student Roster by Score is a multi-page report that is run for each content area at the school and class level. The first page provides a summary of the group results:

1. Highest, Lowest, and Mean OPI score
2. Number of students in each performance level
3. Number of students by FAY status
4. Number of Other Placement students
5. Number of students without scores by not tested reason

Below the summary information is the performance level descriptor and range of OPI scores for each of the four performance level.

The following pages list all students grouped by the earned performance level. Within each group, the students are ordered first by OPI score and then by student name. The following information is provided for each student:

1. OPI score
2. Student Name
3. State Student ID
4. Birth Date
5. Gender
6. Condition code (FAY status, other placement status)

Students who did not earn a score are grouped together at the end and the not tested code is displayed.

## **9.3 INTERACTIVE REPORTS**

Data Interaction, eMetric’s web-based reporting solution, features a range of report types that allow analysis across years from the group level down to the individual student level. Each report type may be customized to include or exclude fields and attributes to meet SDE’s specific needs. Report types include the following:

- Roster report
- Group summary report
- Graphical summary report
- Longitudinal roster report
- Pre-defined, or Quick, report(s)
- Individual student report

### **9.3.1 Roster Report**

Roster report of individual student's scores and demographics by single subject and single administration. Users can select to view, search and filter by organization (school, district or entire state) and a variety of demographic data and score data.

### **9.3.2 Group Summary (Performance Levels)**

The Group Summary Report provides a comparison of school, district, and state group performance over various summary statistics. Statistics include number of students tested, mean scale score, number and percent of students in each performance level, mean raw scores by standards, maximum score possible, and percentage of total points earned for each standard. Users can customize the display by selecting different content areas, statistics, administrations, demographic variables, and report views resulting in powerful and flexible ways to create dynamic reports. Drill-down features further allow users to disaggregate by subgroup or directly access individual student results for a selected subgroup.

### **9.3.3 Group Summary (Standards and Objectives)**

The Group Summary report for Standards and Objectives creates reports by school or district with results of standards and objectives by subject for one administration. The data can be filtered and disaggregated by score and demographic data.

### **9.3.4 Graphical Summary (Performance Levels)**

The Graphical Summary Report provides a visual alternative to analyze group data through the use of graphs and other visualization tools. Summary statistics include percent of students in each performance level and percent of score points earned for each standard. Graphs include bar charts, pie charts, histograms, and line graphs. Users can customize their graphs by selecting different content areas, statistics, administrations, demographic variables, and views. Drill-down features allow users to disaggregate by subgroup or to directly access individual student results.

### **9.3.5 Longitudinal Roster Report**

The Longitudinal Roster report displays results of individual student's scores and demographics by single subject in multiple administrations. Users can select to view, search and filter by organization (school, district or entire state) and a variety of demographic data and score data.

### 9.3.6 Quick Reports

Six quick reports are provided. These are the same summary or roster reports outlined above with specific pre-selected filters requested by the client that provide most commonly used report data. Quick reports provided are:

- Summary Report of Total Tested by organization, administration and subject
- Group Summary Report (Standards and Objectives) filtered by Full Academic Year
- Group Summary Report (Standards and Objectives) filtered by Not Full Academic Year
- Graphic Summary Report (Performance Levels) filtered by Full Academic Year
- Graphic Summary Report (Performance Levels) filtered by Not Full Academic Year
- Roster Report with score and demographic data for all subjects in an administration

## 9.4 QUALITY ASSURANCE

Quality assurance measures at Measured Progress are embedded throughout the entire process of analysis and reporting. The data processors and statistical analysts working on the Oklahoma OCCT implement quality control checks of their respective computer programs and intermediate products. Moreover, when data are handed off to different functions within the Data and Reporting Services (DRS) division, the sending function verifies that the data are accurate prior to handoff. Additionally, when a function receives a data set, the first step is to verify the data for accuracy.

Another type of quality assurance measure is parallel processing. One data analyst is responsible for writing all programs required to populate the student and aggregate reporting tables for the administration. Each reporting table is assigned to another data analyst on staff who uses the decision rules to independently program the reporting table. The production and quality assurance tables are compared and only when there is 100% agreement are the tables released for report generation.

The third aspect of quality control involves the procedures implemented by the quality assurance group to check the accuracy of reported data. Using a sample of schools and districts, the quality assurance group verifies that reported information is correct. The selection of sample schools and districts for this purpose is very specific and can affect the success of the quality control efforts. There are two sets of samples selected that may not be mutually exclusive. The first set includes those that satisfy the following criteria:

- one-school district
- two-school district
- multi-school district
- special school, e.g., charter school
- small school that does not have enough students to report aggregations



- school with excluded (not tested) students
- school with homeschooled students

The second set of samples includes districts or schools that have unique reporting situations as indicated by decision rules. This set is necessary in order to check that each rule is applied correctly. The quality assurance group uses a checklist to implement its procedures. Once the checklist is completed, sample reports are circulated for psychometric checks and program management review. The appropriate sample reports are then sent to the SDE for review and signoff.

## CHAPTER 10 VALIDITY

### 10.1 SCALE VALIDATION AND POST-EQUATED CHECK OF PRE-EQUATED TESTS

As described in Section 7.3 most of the OCCT tests (with the exception of Science, Social Studies, and U.S. History) were equated using item pre-equating. However, with pre-equating there are a number of cautions that need to be taken into consideration. Kolen and Brennan (2014) state that to ensure that items behave the same on each administration the items should appear in the same contexts and positions operationally as they did nonoperationally. Thus, care must be taken to avoid significant shifts in position and context. Any drift must be carefully monitored and controlled to ensure comparability between forms of the test.

To provide scale validation evidence, Measured Progress performed a rigorous post-equated check of the test data. One primary usage of the check is to use item bank parameters selectively to exclude the adverse effect of parameter drift on the stability and health of the item bank. Another advantage of the check is the usage of more calibration samples to get the better parameter estimates.

The procedures for the post-equated check generally mirror that of our procedures for post-equating described in Section 7.3.1.2. Once the test score data are received they are calibrated using item response theory (IRT) with the three-parameter logistic (3PL) and generalized partial credit model (GPCM) models described in section 7.1. As part of this process,  $a$ -plots and  $b$ -plots, which show IRT parameters for 2014–15 plotted against the values for 2013–14, are presented in Appendix P. Any items that are flagged are excluded as potential equating items from the subsequent equating procedures.

Next, to bring the calibrated parameters on to the same scale as the previous years they are equated using the Stocking and Lord (1983) method of equating. For this process equating items were selected based on a rigorous set of criteria including position, context, and stability. Stability was checked through  $a/a$ ,  $b/b$ , and delta analyses to ensure there was no significant drift in the parameters of the equating items.

In addition, the calibrated parameters and equated parameters were evaluated to further investigate drift at both the item and test level. At the item level, mean absolute differences and root mean square differences were calculated and investigated, and at the test level the raw score cuts were compared. Finally, the operational item parameters resulting from this process were updated in the item bank, and these updated parameters were used as part of field-test calibrations.

### 10.2 TEST SCORE VALIDATION EVIDENCE

Because interpretations of test scores, and not a test itself, are evaluated for validity, the purpose of the 2014–15 *Oklahoma OCCT Technical Report* is to describe several technical aspects of the Oklahoma OCCT tests in support of score interpretations (AERA, et al., 2014). Each chapter contributes an important

component in the investigation of score validation: test development and design; test administration; scoring, scaling, and equating; item analyses; reliability; and score reporting.

As stated in the overview chapter, *Standards for Educational and Psychological Testing* (AERA, et al., 2014) provides a framework for describing sources of evidence that should be considered when constructing a validity argument. The evidence around test content, response processes, internal structure, relationship to other variables, and consequences of testing speak to different *aspects* of validity but are not distinct *types* of validity. Instead, each contributes to a body of evidence about the comprehensive validity of score interpretations.

Evidence on test content validity is meant to determine how well the assessment tasks represent the curriculum and standards for each content area. Content validation is informed by the item development process, including how the test blueprints and test items align to the curriculum and standards. Viewed through this lens provided by the Standards, evidence based on test content was extensively described in Chapters 3 and 4. Item alignment with Oklahoma content standards; item bias, sensitivity and content appropriateness review processes; adherence to the test blueprint; use of multiple item types; use of standardized administration procedures, with accommodated options for participation; and appropriate test administration training are all components of validity evidence based on test content. As discussed earlier, all OCCT questions are aligned by Oklahoma educators to specific Oklahoma content standards, and undergo several rounds of review for content fidelity and appropriateness. Items are presented to students in multiple formats (constructed-response, short-answer, and multiple-choice). Finally, tests are administered according to state-mandated standardized procedures, with allowable accommodations, and all test proctors are required to attend annual training sessions.

The scoring information in Chapter 5 describes the steps taken to train and monitor hand-scorers, as well as quality-control procedures related to scanning and machine scoring. To speak to student response processes, however, additional studies would be helpful and might include an investigation of students' cognitive methods using think-aloud protocols.

Evidence based on internal structure is presented in great detail in the discussions of item analyses, reliability, and scaling and equating in Chapters 6 through 8. Technical characteristics of the internal structure of the assessments are presented in terms of classical item statistics (item difficulty, item-test correlation), differential item functioning (DIF) analyses, dimensionality analyses, reliability, standard errors of measurement, and item response theory parameters and procedures. Each test is equated to the same content test from the prior year to preserve the meaning of scores over time. In general, item difficulty and discrimination indices were in acceptable and expected ranges. Very few items were answered correctly at near-chance or near-perfect rates. Similarly, the positive discrimination indices indicate that most items were assessing consistent constructs, and students who performed well on individual items tended to perform well overall.

Evidence based on the consequences of testing is addressed in the scaled scores information in Chapter 7 and the reporting information in Chapter 9, as well as in the test interpretation guide, which is a separate document that is referenced in the discussion of reporting. Each of these chapters speaks to the efforts undertaken to promote accurate and clear information provided to the public regarding test scores. Scaled scores offer the advantage of simplifying the reporting of results across content areas, and subsequent years. Performance levels provide users with reference points for mastery at each content area, which is another useful and simple way to interpret scores. Several different standard reports are provided to stakeholders. In addition, a data analysis tool is provided to each school system to allow educators the flexibility to customize reports for local needs. Additional evidence of the consequences of testing could be supplemented with broader investigation of the impact of testing on student learning.

To further support the validation of the assessment program, additional studies might be considered to provide evidence regarding the relationship of OCCT results to other variables including the extent to which scores from the OCCT converge with other measures of similar constructs, and the extent to which they diverge from measures of different constructs. Relationships among measures of the same or similar constructs can sharpen the meaning of scores and appropriate interpretations by refining the definition of the construct.

The evidence presented in this report supports inferences of student achievement on the content represented on the Oklahoma content standards for the OCCT assessments for the purposes of program and instructional improvement and as a component of school accountability.

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# APPENDICES

# APPENDIX A—CONTENT STANDARDS





## LANGUAGE ARTS

### OVERVIEW

English language arts education incorporates the teaching and learning of reading, writing, speaking, listening, and viewing. Integration of language arts occurs in multiple ways. First, curriculum, instruction, and assessment reflect the integration of listening, speaking, viewing, reading, and writing. The language arts are not perceived as individual content areas, but as one unified subject in which each of the five areas supports the others and enhances thinking and learning. Secondly, there is integration of the teaching and learning of content and process within the curriculum. The common human experiences and the ideas, conflicts, and themes embodied in literature and all oral, written, and visual texts provide a context for the teaching of the processes, skills, and strategies of listening, speaking, viewing, reading, and writing. Finally, literacy educators believe the knowledge, skills, and strategies of language arts are integrated throughout the curriculum, enabling students to solve problems and think critically and creatively in all subject areas.

Language arts is the vehicle of communication by which we live, work, share, and build ideas and understandings of the present, reflect on the past, and imagine the future. Through language arts, we learn to appreciate, integrate, and apply what is learned for real purposes in our homes, schools, communities, and workplaces.

An effective language arts program should encompass process and content—how people communicate as well as what they communicate. Process includes skills and strategies used in listening, speaking, reading, writing, and viewing. Content includes the ideas, themes, issues, problems, and conflicts found in classical and contemporary literature and other texts, such as technical manuals, periodicals, speeches, and videos. Ideas, experiences, and cultural perspectives we discover in texts help us shape our visions of the world. The insight we gain enables us to understand our cultural, linguistic, and literary heritages.

In Grades K-12, a locally developed language arts curriculum, embodying these content standards, will ensure all students are literate and can engage successfully in reading, discovering, creating, and analyzing spoken, written, electronic, and visual texts which reflect multiple perspectives and diverse communities and make connections within language arts and between language arts and other fields.

### READING/LITERATURE

The revised reading standards in the *Priority Academic Student Skills (PASS)* reflect scientifically-based reading research and are organized in the following related strands:

**Print Awareness**  
**Phonological/Phonemic Awareness**  
**Phonics/Decoding**  
**Vocabulary**  
**Fluency**  
**Comprehension/Critical Literacy**

The National Reading Panel has revealed that the most reliably effective approach is

systematic and explicit instruction. Skills are taught in a logical sequence and teachers clearly state what is being taught. These reading skills are interrelated and need to be developed in the context of a core curriculum that applies effective reading strategies to achieve success in all academic areas.

**PRINT AWARENESS** - is the ability to understand how print works. This includes knowing that the print on the page represents the words that can be read aloud and distinguishing between various forms and purposes of print, from personal letters and signs to storybooks and essays.

**PHONOLOGICAL/PHONEMIC AWARENESS** - is an oral prerequisite to phonics and one of the best predictors of later reading success. It is the understanding that words and syllables can be broken down into smaller units or phonemes. Research indicates that poor phonemic awareness is a major underlying cause of reading difficulty. A student's progress should be monitored throughout the kindergarten year by administering informal phonemic awareness assessments.

**PHONICS/DECODING** - instruction provides students with a consistent strategy to apply sound-symbol relationships to assist in the identification of unfamiliar words. The goal of teaching children phonics is to teach children to decode unfamiliar words easily and automatically as they read. Children must be encouraged to use this strategy on their own.

**VOCABULARY** - knowledge is essential to reading because a reader's understanding comes chiefly from his or her vocabulary base. Vocabulary development can be achieved through reading, direct instruction, and student-centered activities. A balanced vocabulary program contains all three of these strategies.

**READING FLUENCY** - research refers to two stages of reading development. The first is the "decoding stage" where the student learns how to change printed symbols into sounds. During the next stage called the "fluency stage," the student continues to work on decoding skills to the point where the child becomes "unglued" from the print. Word recognition becomes easy, and fluent reading is characterized by a lack of trouble with word identification.

Easy word recognition frees a student's attention to comprehend the text. Achieving speed and accuracy in recognizing words is reading fluency.

**COMPREHENSION/CRITICAL LITERACY** - is understanding the meaning or point of the text; it is the essence of reading. Comprehension is a complex process. As readers mature they become more strategic in their process to construct meaning from text. Comprehension involves understanding what is read, what is meant, and what is implied. Students read for a variety of purposes, to locate information, to be informed, entertained, persuaded, and so on. Students use a wide range of strategies to help them meet their purpose. These strategies include making predictions, activating prior knowledge, skimming text for literal information, drawing inferences and conclusions, interpreting meaning, summarizing information, analyzing and evaluating text, monitoring reading, and using correction strategies.

Reading requires the coordination of cues as sources of information: sound/symbol relationships, syntax, semantics, and context. When reading, readers use three cueing systems. They derive semantic cues from the text's meaning, syntactic cues from the text's grammatical structure, and graphophonic cues from sound-letter relationships and patterns. Cueing systems are important and are constantly in motion to enable readers to construct meaning. They help readers answer questions such as: Does this make sense? Does this sound right? Does this look right?

Readers use a variety of strategies to ensure comprehension. They predict what they think the text is about to convey and confirm their prediction by checking to see if meaning is maintained. Readers monitor understanding and take action when meaning breaks down by choosing to self-correct or continue to read ahead only to return later to reconstruct meaning from previously read text.

Writing is also a means of learning. This process is “a valuable tool for learning for all students in all subject areas at all ages.” While writing to learn, students discover connections, describe processes, express emerging understandings, raise questions, and find answers. For example, students learn content in science or social studies through keeping a response or process journal, or a learning log.

## **THE WRITING PROCESS**

**WRITING** - should be taught as a natural and integral part of the curriculum. Instruction should encourage whole pieces of writing for real purposes and real audiences (and should include all stages of the writing process). Because writing is recursive, the stages may not occur in a linear sequence, but the writer may revert to an activity characteristic of an earlier stage. The stages of the writing process include prewriting, drafting, revising, editing, and publishing.

**PREWRITING** - is the process that helps the writer get ready to write. Students gather ideas and organize them. During this stage, the topic is generated and purpose, audience, and form are clarified. It is conceivable that the prewriting stage will take more time than any other stage in the process. Activities may include class discussion, reading, predicting, remembering, word banks, observing, thinking, student notebooks, drawing, free writing, modeling, clustering/webbing, cubing, and brainstorming.

**DRAFTING** - is putting ideas down on paper with a focus on content, and begins with notes or ideas generated during prewriting. The first draft may be kept in a journal, writer’s notebook, writing center, or on a computer disk. Students are also encouraged to explore a topic without grammatical inhibitions or over concern about spelling or punctuation. The teacher’s role is to encourage students to “get it down.”

**REVISING** - is refining of content, not mechanics. Revision (“to see again”) begins during the prewriting activity and continues through the final draft. It is best achieved in an interactive setting with the teacher or a group of peers. Writers should think again about the choices made for content and add, delete, or rearrange the material. Thus, writing becomes thinking made visible. Writers critically read their own writing and become their own reader. Since revising can be internal and unobservable, revising skills can be taught by modeling the questions asked by critical readers.

**EDITING** - is the stage in which the writing is made suitable for publication. Positive reinforcement is more effective than corrective comments to improve the quality of writing. Peer editing in writing groups helps teach and reinforce proofreading skills. Students are to locate and correct errors in punctuation, capitalization, spelling, usage, and sentence structure so that errors in conventions do not interfere with a reader’s ability to understand the message.

**PUBLISHING** - the student’s work is essential to the composing process. Publication

provides an opportunity for the writer's product to be shared with and/or evaluated by the intended audience or reader in general. An authentic audience, one with whom the students want to communicate, is necessary for effective writing. Without some type of publication, students may forget or never realize that their writing is meaningful communication.

It is important to note that not every piece that a writer begins will be carried through the entire writing process and polished for publication. However, each student should be encouraged to develop some pieces of writing thoroughly enough to be published. Publishing is an important motivator in working through the stages of the composing process. The purpose of publishing is to reinforce the idea that writing is an act of communication.

## **SPELLING**

Spelling, writing, and reading are interrelated and coherent. Writing leads to mastery in reading; reading leads to mastery in writing. Combined instruction leads to improvement in both reading and writing.

Research indicates that as children use temporary or phonetic spelling. Phonetic spelling develops and reinforces knowledge of phonics. It is important to understand that temporary spelling is not in conflict with correct spelling. When children use temporary spelling, they are practicing their growing knowledge of phonemes. First grade children should be expected to correctly spell previously studied words and spelling patterns. Temporary spelling of common spelling patterns should progress toward more conventional spelling by the end of second grade with the students mastering the conventional spelling of increasing numbers of words.

Spelling instruction should help students understand how words are put together (word patterns). Therefore, extensive reading and writing help students become good spellers.

## **HANDWRITING/PENMANSHIP**

Young children need an awareness of print to communicate effectively. Handwriting/penmanship is that method for forming letters that comprise a writing system, as well as, how to express thoughts in the written word. Through writing, children form a muscular and visual memory of the letters and words; and, therefore can recognize them. Students must be aware of the importance of legibility to facilitate communication of the intended message. Elements of legible handwriting include letter formation, size and proportion of letters, spacing, slant, alignment of letters on the baseline, and uniform steadiness and thickness of line. Writing should reinforce the fact that language has meaning. It gives students an opportunity to develop personal voice and style upon which they can reflect.

## **ORAL LANGUAGE/LISTENING/SPEAKING**

There is clearly a need for schools to spend more time teaching speaking and listening. More than 75 percent of all communication is devoted to the oral communication process. People in the workplace devote one-third of all working time carrying on face-to-face talk, and corporate managers spend about 60 percent of their time in communicating orally in meetings or on the telephone. Moreover, even with sophisticated electronic communication devices, oral language is still the main way of passing culture from one generation to another. Even with this

demonstrated need for effective oral communication, almost two-thirds of young people have difficulty explaining how to get to a local grocery store in directions that can be understood.

Although the “school” emphasis on reading and writing may create the impression that oral language skills are not as important, this is not the case. Oral language is now, and is even more likely to be in the future, the primary means of acquiring and transmitting information.

Fortunately, students begin to learn oral language skills naturally. They listen to the sounds of adults and other children and internalize language patterns quite early in order to communicate orally themselves. However, not all children come to school with equal opportunities to develop language skills. Children who have experienced positive feedback to their efforts to use language, and have had opportunities to hear language used in a variety of social contexts, are better prepared to use oral language as a foundation for their reading and writing development.

Since some children have limited opportunities for oral language in their home environments and since oral language development continues through at least age twelve, all children can improve their oral language ability with instruction and guidance. It is essential that oral language instruction begin in kindergarten and continue throughout school.

## **VISUAL LITERACY**

Visual literacy (both viewing and representing) refers to the ability to comprehend, evaluate, and compose visual messages. Visually literate persons are able to read visual messages, compose visual language statements, and translate from visual to verbal and vice versa. Students learn attitudes, behaviors, and questions to ask which enable them to think abstractly and analytically.

Viewing is an ongoing lifetime activity that extends knowledge and experiences and provides enjoyment and pleasure. Therefore, learners will need to become engaged in a variety of viewing experiences, both in comprehending and composing. The media for visual communication may include: field trips, graphic displays, models, photographs, pictures, transparencies, picture books, newspapers, filmstrips, videotapes, labels, posters, advertisements, cartoons, carvings, paintings, memos, plays, dances, television, charts, maps, diagrams, graphic aids in oral presentations, signs, logos, creative movement, and computers.

It is an important goal of education for learners to be able to critique and use the dominant media of today. Visual literacy is essential for survival as consumers and citizens in our technologically intensive world.

### **NOTE:**

Asterisks (\*) have been used to identify standards and objectives that must be assessed by the local school district. All other skills may be assessed by the Oklahoma School Testing Program (OSTP).

Book icons ( ) identify Information Literacy skills. Students are best served when these are taught in collaboration and cooperation between the classroom teacher and the library media specialist.

# LANGUAGE ARTS

## Grade 1

**Reading/Literature: The student will apply a wide range of strategies to comprehend, interpret, evaluate, appreciate, and respond to a variety of texts.**

**Standard 1: Print Awareness - The student will develop and demonstrate knowledge of print awareness.**

1. Read from left to right, top to bottom.
2. Track print as text is being read.
3. Recognize the difference among letters, words, and sentences.

**Standard 2: Phonological/Phonemic Awareness – The student will develop and demonstrate knowledge of phonological/phonemic awareness.**

1. Create and state groups of rhyming words.  
Example: bat/cat/sat/mat
2. Count syllables in a word.
3. Distinguish onset (beginning sound) and rime in one syllable words.  
Examples: onset: /b/ in bat; rime: at in bat
4. Segment and blend the phonemes of one-syllable words.  
Example: bat = /b/ /a/ /t/
5. Isolate phonemes within words by identifying the beginning, middle, and ending sounds in one-syllable words.  
Example: the beginning sound of dog is /d/  
the middle sound in can is /a/
6. Add or delete a phoneme to a word.  
Example: /b/ + at = bat, cat - /k/ = at

**Standard 3: Phonics/Decoding – The student will apply sound-symbol relationships to decode unknown words.**

1. Phonetic Analysis - Apply phonics knowledge to decode one-syllable words.
  - a. Use short and long vowel patterns.  
Example: CVC = mad, hid, cut  
Example: CVCV (final e) = made, hide, cute  
Example: CV<sup>1</sup> = he, me, so



b. Use r-controlled vowel patterns

Example: er = “r” in fern, ir = “r” in bird, and ur = “r” in turn

c. Use blends, digraphs, and diphthongs.

Example: Blends – fl, tr, sl, sm, sn, bl, gr, and str

Example: Digraphs – sh, th, wh

Example: Diphthongs – oi, oy, ou, ow

2. Structural Analysis - Apply knowledge of structural analysis to decode words using strategies such as inflectional endings, contractions and compound words, and possessives.

Example: inflectional endings – adding -s, -es, -ing, or -ed to a word

Example: compound words – cup + cake = cupcake

Example: contraction – can + not = can’t

**Standard 4: Vocabulary – The student will develop and expand knowledge of words and word meanings to increase vocabulary.**

1. Increase personal vocabulary by listening to and reading a variety of text and literature.

2. Discuss unfamiliar oral and/or written vocabulary after listening to or reading texts.

3. Use new vocabulary and language in own speech and writing.

4. Classify categories of words.

Example: Tell which of the following are fruits and which are vegetables: bananas, oranges, apples, carrots, and peas

**Standard 5: Fluency – The student will identify words rapidly so that attention is directed at the meaning of the text.**

1. Read regularly in independent-level text (text in which no more than 1 in 20 words is difficult for the reader), effortlessly, and with expression.

2. Read regularly in instructional-level text (text in which no more than 1 in 10 words is difficult for the reader).

3. Students will engage in repeated readings of the same text to increase fluency.

4. Recognize 100-200 high frequency and/or common irregularly spelled words in text. (e.g., have, to, was, where, said).

5. Use punctuation cues (e.g., periods, commas, question marks) in text as a guide to understand meaning.

**Standard 6: Comprehension/Critical Literacy – The student will interact with the words and concepts in a text to construct an appropriate meaning.**

1. Literal Understanding

- a. Read and comprehend both fiction and nonfiction that is appropriately designed for the second half of first grade.
  - b. Use prereading strategies such as previewing, using prior knowledge, predicting, and establishing a purpose for reading.  
Example: Prior to reading the book *Verdi* by Janell Cannon, have students preview the book by looking at the cover, identifying the main character and telling what they know about snakes (what they do, where they live . . . ). Make predictions by doing a picture walk to discuss some of the early actions in the story.
  - c. Respond to questions designed to aid general comprehension.
2. Inferences and Interpretations - Make simple inferences based on what is stated in text.
  3. Summary and Generalization
    - a. Retell or act out stories and events using beginning, middle, and ending.
    - b. Respond to who, what, when, where, why, and how questions and discuss the main idea of what is read.
    - c. Draw and discuss visual images based on text information.
  4. Analysis and Evaluation
    - a. Identify simple cause and effect relationships.
    - b. Mark favorite passages.
  5. Monitoring and Correction Strategies - Apply a basic use of semantics, syntax, and graphophonic cues.  
Example: semantic - Does it make sense?  
Example: syntax - Does it sound right?  
Example: graphophonic - Does it look right?

**Standard 7: Literature - The student will read to construct meaning and respond to a wide variety of literary forms.**

1. Literary Genres – The student will demonstrate knowledge of and appreciation of the various forms (genres) of literature.
  - a. Discriminate between fiction and nonfiction.
  - b. Recognize elements of different cultures in multicultural tales.
2. Literary Elements – The student will demonstrate knowledge of literary elements and techniques and how they affect the development of a literary work.

- a. Describe the roles of authors and illustrators in telling a story or presenting information.
- b. Identify and describe the plot, setting, and character(s) in a story.

**Standard 8: Research and Information - The student will conduct research and organize information.** □

1. Accessing Information: Select the best source for a given purpose.
  - a. Alphabetize words to the first letter.
  - b. Read and follow simple written directions.
  - c. Recognize author, illustrator, title page, and table of contents (when applicable) as identifying items of information about a book.
  - d. Access information from simple charts, maps, graphs, and calendars.
2. Interpreting Information: Analyze and evaluate information from a variety of sources and generate questions about topics of personal interest and find books to gather information.

**Writing/Grammar/Usage and Mechanics. The student will express ideas effectively in written modes for a variety of purposes and audiences.**

**Standard 1: Writing Process. The student will use the writing process to write coherently.**

1. Participate in prewriting activities such as brainstorming, discussion, webbing, illustrating or story starters.
2. Introduce a process approach to create a first draft with teacher assistance, applying developmentally appropriate steps of prewriting and first draft composition.
3. Begin understanding of the revision process with teacher assistance.
  - a. Create a main idea.
  - b. Apply details to support the main idea.
  - c. Create a logical sequence of events.
4. Introduce, with teacher assistance, editing/proofreading of the first draft for simple usage, mechanics, and spelling.
5. Introduce and apply, with teacher assistance, standard editing marks for capitalization, deletion, and sentence termination.

6. Publish and present the final writing product to various audiences, such as peers or adults.

**Standard 2: Modes and Forms of Writing. The student will communicate through a variety of written forms, for various purposes, and to a specific audience or person.**

1. Recognize modes and forms of language such as informing, persuading, and entertaining.
2. Compose simple narratives (stories) with a consistent focus of a beginning, middle, and end that develop a main idea, use details to support the main idea, and present a logical sequence of events.
3. Write brief description, using some details, of a real object, person, place, or event.
4. Develop, with teacher assistance, "thank you" notes, friendly letters, and invitations to a specific audience or person.
5. Make journal entries.
6. Introduce and compose, with teacher assistance, different modes of simple rhymes and poems.

**Standard 3: Grammar/Usage and Mechanics. The student will demonstrate appropriate practices in writing by applying Standard English conventions to the revising and editing stages of writing.**

1. Grammar/Usage: Students are beginning to recognize appropriate use of nouns, pronouns, verbs, adjectives, and contractions in their writing.
  - a. Subject (naming part) and predicate (action part)
  - b. Singular and plural nouns
  - c. Common and proper nouns
  - d. Singular, personal, gender pronouns
  - e. Nominative and possessive pronouns
  - f. Present and past tense verbs
  - g. Contractions
  - h. Adjectives
2. Mechanics: Students are expected to demonstrate appropriate language mechanics in writing.
  - a. Capitalize the first word of a sentence and the pronoun "I."
  - b. Capitalize all proper nouns (John, Sally).

- c. Capitalize greetings (Dear Joe).
  - d. Capitalize months and days of the weeks (December, Monday).
  - e. Capitalize titles (Dr., Mr., and Mrs.).
  - f. Capitalize initials of people (A.J. Smith).
3. Punctuation: Students are expected to demonstrate appropriate punctuation in writing.
- a. Correctly use terminal (end) punctuation.
  - b. Use commas correctly in dates.
  - c. Use apostrophes correctly in contractions.
  - d. Use quotation marks to show that someone is speaking.
  - e. Use a period in common abbreviations.
4. Sentence Structure: The student will demonstrate appropriate sentence structure in writing a complete sentence (simple subject and simple predicate).
5. Sentence Variety: The student will identify declarative (telling), interrogative (asking), and exclamatory (exciting) sentences.
6. Spelling: Students are expected to demonstrate appropriate application of spelling knowledge to the revising and editing stages of writing.
- a. Spell correctly frequently used grade-level-appropriate sight words.
  - b. Spell short vowel words using the cvc pattern (Example: it-hit, an-man).
  - c. Spell long vowel words using the cvce pattern (Example: lake, bone, time).
7. Handwriting: Students are expected to demonstrate appropriate handwriting in the writing process.
- a. Print legibly and space letters, words, and sentences appropriately.
  - b. Print using left to right progression moving from the top to the bottom of the page.

**Oral Language/Listening and Speaking: The student will demonstrate thinking skills in listening and speaking.**

**Standard 1: Listening – The student will listen for information and for pleasure.**

- 1. Listen attentively and ask questions for clarification and understanding.
- 2. Give, restate, and follow simple two-step directions.

**Standard 2: Speaking – The student will express ideas and opinions in a group or individual situations.**

1. Stay on topic when speaking.
2. Use descriptive words when speaking about people, places, things and events.
3. Recite poems, rhymes, songs and stories.
4. Retell stories using basic story grammar and relating the sequence of story events by answering who, what, when, where, why, and how questions.
5. Relate an important life event or personal experience in a simple sequence.
6. Provide descriptions with careful attention to sensory detail.
7. Use visual aids such as pictures and objects to present oral information.

**Standard 3: Group Interaction - The student will use effective communication strategies in pair and small group context.**

1. Show respect and consideration for others in verbal and physical communications.
2. Make contributions in group discussions.

**Visual Literacy: The student will interpret, evaluate, and compose visual messages.**

**Standard 1: Interpret Meaning – The student will interpret and evaluate the various ways visual image-makers including graphic artists, illustrators, and news photographers represent meaning.**

1. Respond to visual messages by distinguishing between fiction and nonfiction in stories, videos, and television programs.
2. Respond through talk, movement, music, art, drama and writing in ways that reflect understanding of a variety of stories and poems.

**Standard 2: Evaluate Media - The student will evaluate visual and electronic media such as film as compared with printed messages. Example: Make connections between illustrations and print.**

## Language Arts

### Grade 2

**Reading/Literature: The student will apply a wide range of strategies to comprehend, interpret, evaluate, appreciate, and respond to a wide variety of texts.**

**Standard 1: Phonological/Phonemic Awareness – The student will demonstrate the ability to hear, identify, and manipulate words, syllables, onsets, rimes, and individual sounds (phonemes) in spoken words.**

1. Demonstrate an awareness of the sounds that are made by different letters by distinguishing beginning, middle, and ending sounds in words, rhyming words, and clearly pronouncing blends and vowel sounds.

a. Segment and blend the phonemes of one- and two-syllable words.

Example: salad = /s/ /a/ /l/ /a/ /d/, /s/ /a/ /l/ /a/ /d/ = salad

b. Substitute a phoneme change to a word.

Example: slap, change the /p/ to /m/ = slam

**Standard 2: Phonics/Decoding – The student will apply sound-symbol relationships to decode unknown words.**

1. Phonetic Analysis

a. Use consonant sounds in beginning, medial, and final positions.

b. Use short, long, and r-controlled vowel sounds.

Example: short – CVC pattern – rob

Example: long – VC final e – robe

Example: r-controlled – “er” in her, “ir” in bird, “ur” in turn, “ar” in car and “or” in port

c. Use blends, digraphs, and diphthongs.

Example: blends – cr, sk, st, sw, squ, thr

Example: digraphs – ch, wh, sh, th, ph

Example: diphthongs – oi, oy, ou, ow

2. Structural Analysis

a. Build and understand compound words, contractions, and base words using prefixes and suffixes.

Example: compound words – straw + berry = strawberry

Example: contractions – I am = I’m

Example: prefixes – un + happy = unhappy

Example: suffixes – care + ful = careful

Example: care is the base word of careful; happy is the base word of unhappy

b. Apply knowledge of basic syllabication rules to decode words in text.

Example: VC-CV – rab-bit = rabbit

Example: V-CV – pi-lot = pilot

Example: VC-V – cab-in = cabin

**Standard 3: Vocabulary – The student will develop and expand knowledge of words and word meanings to increase vocabulary.**

1. Words in Context - Expand vocabulary in language and writing by reading and listening to a variety of text and literature.
2. Synonyms, Antonyms, and Homonyms/Homophones - Understand and explain common antonyms (words with opposite meanings), synonyms (words with the same meanings), and homonyms/homophones (words which sound the same but have different spellings and meanings, e.g., bear and bare).
3. Affixes - Know the meaning of simple prefixes and suffixes.  
Example: In unhappy, the "un" means not. In played, the suffix "ed" changes play to past tense.

**Standard 4: Fluency – The student will identify words rapidly so that attention is directed at the meaning of the text.**

1. Read regularly in independent-level text (text in which no more than 1 in 20 words is difficult for the reader) effortlessly and with expression.
2. Read regularly in instructional-level text that is challenging yet manageable (texts in which no more than 1 in 10 words is difficult for the reader).
3. Engage in repeated readings of same text to increase fluency.
4. Accurately and fluently read 200-300 high frequency and/or irregularly spelled words in meaningful text.
5. Use punctuation cues in text (i.e., commas, periods, question marks, and exclamation points) as a guide to understanding meaning.

**Standard 5: Comprehension/Critical Literacy – The student will interact with the words and concepts in a text to construct an appropriate meaning.**

1. Literal Understanding
  - a. Read and comprehend both fiction and nonfiction that is appropriately designed for second grade.
  - b. Use prereading strategies to preview, activate prior knowledge, make predictions, use picture clues, and establish the purpose for reading (i.e.,



graphic organizers).

- c. Ask and respond to questions to aid comprehension about important elements of fiction and nonfiction.

## 2. Inferences and Interpretation

- a. Make inferences about events, characters, and ideas in fictional texts by connecting knowledge and experience to the story.
- b. Support interpretations or conclusions with examples taken from the text.

## 3. Summary and Generalization

- a. Retell or act out narrative text by identifying story elements and sequencing the events.
- b. Produce oral or written summaries of text selections by discussing who, what, when, where, why, and how to identify the main idea and significant supporting details of a text.

## 4. Analysis and Evaluation

- a. Identify cause and effect relationships in a text.
- b. Make comparisons and draw conclusions based on what is read.
- c. Describe character traits, changes, and relationships.

## 5. Monitoring and Correction Strategies - Integrate the use of semantics, syntax, and graphophonic cues to gain meaning from the text.

Example: semantic – Does it make sense?

Example: syntax – Does it sound right?

Example: graphophonic – Does it look right?

## **Standard 6: Literature: The student will read to construct meaning and respond to a wide variety of literary forms.**

### 1. Literary Genres – Demonstrate knowledge of and appreciation for various forms (genres) of literature.

Example: Recognize defining characteristics of a variety of texts (e.g., poems, informational text, plays, folk tales, fables, predictable books, legends, and fairytales).

### 2. Literary Elements – Demonstrate knowledge of literary elements and techniques and how they affect the development of a literary work.

- a. Compare different endings to stories and identify the reasons and the impact of the different ending.

- b. Compare plots, settings, and characters presented in several texts by the same author (i.e., author studies).
  - c. Infer the lesson or moral in a variety of texts (e.g., multicultural tales, fables, legends, and myths).
3. Figurative Language and Sound Devices – The student will identify figurative language and sound devices in writing and how they affect the development of a literary work. Example: Identify the use of rhythm, rhyme, and alliteration (using words with repeating consonant sounds [e.g., "Silly Sally went to town."] in poetry).

**Standard 7: Research and Information - The student will conduct research and organize information.**

- 1. Accessing Information – Select the best source for a given purpose.
  - a. Identify the purposes of various reference materials such as a dictionary, a thesaurus, and an atlas.
  - b. Alphabetize to the second letter.
  - c. Use guide words to locate words in dictionaries and topics in encyclopedias.
  - d. Use title page, table of contents, glossary, and index to locate information.
  - e. Use and interpret charts, maps, graphs, schedules, and directions.
- 2. Interpreting Information – Analyze and evaluate information from a variety of sources. Example: Use graphic organizers, such as webbing and mapping, to organize and summarize information.

**Writing/Grammar/Usage and Mechanics.** The student will express ideas effectively in written modes for a variety of purposes and audiences.

**Standard 1: Writing Process. The student will use the writing process to write coherently.**

- 1. Introduce a variety of prewriting activities such as brainstorming, clustering, illustrating, using graphic organizers, and webbing.
- 2. Use a process approach to write coherently, using developmentally appropriate steps of the writing process: prewriting, drafting, revising, editing/proofreading, and publishing or presenting the final product.
- 3. Begin writing an independent first draft with a clear beginning, middle, and ending.
- 4. Use the revision process and continue to use the standard editing marks and proofreading skills introduced in the first grade.

5. Publish and present final writing products with various audiences such as peers or adults.

**Standard 2: Modes and Forms of Writing. Communicate through a variety of written forms, for various purposes, and to a specific audience or person.**

1. Develop modes and forms of language such as informing, persuading, and entertaining.
2. Write brief personal descriptive narratives (stories) with a consistent focus of a beginning, middle, and ending that:
  - a. Present a logical sequence of events.
  - b. Develop a main idea.
  - c. Use details to support the main idea.
3. Write "thank you" notes, friendly letters (identifying the five parts), and invitations.
4. Make journal entries.
5. Create different modes of simple rhymes and poems.

**Standard 3: Grammar/Usage and Mechanics. The student will demonstrate appropriate practices in writing by applying Standard English conventions to the revising and editing stages of writing.**

1. Grammar/Usage: Students are expected to recognize subject (naming part), and predicate (action part), correctly use nouns, pronouns, verbs, contractions, and adjectives in their writing.
  - a. Subject (naming part) and predicate (action part)
  - b. Singular and plural nouns
  - c. Common and proper nouns
  - d. Singular, plural, and personal pronouns
  - e. Nominative and possessive pronouns
  - f. Present and past tense verbs
  - g. Helping verbs
  - h. Adjectives
  - i. Contractions (e.g., I'm, You're)
2. Mechanics: Students are expected to demonstrate appropriate language mechanics in writing.
  - a. Capitalize correctly the first word in a sentence and the pronoun "I."

- b. Capitalize all proper nouns (names of specific people or things, such as Mike, Indian, Jeep).
  - c. Capitalize greetings (Dear Sir).
  - d. Capitalize the months and days of the week (January, Monday)
  - e. Capitalize titles (Dr., Mr., and Mrs.).
  - f. Capitalize initials of people (A.J. Smith).
3. Punctuation: Students are expected to demonstrate appropriate punctuation in writing.
- a. Correctly use terminal (end) punctuation.
  - b. Use commas correctly in dates.
  - c. Use apostrophes correctly in contractions.
  - d. Use quotation marks to show that someone is speaking.
  - e. Use period in common abbreviations.
4. Sentence Structure: The student will demonstrate appropriate sentence structure in writing declarative, imperative, interrogative, and exclamatory sentences for different modes of writing.
- a. Write in complete sentences.
  - b. Write sentences using a noun, verb, and details.
5. Spelling: Students are expected to demonstrate appropriate application of spelling knowledge to the revising and editing stages of writing.
- a. Spell correctly words with short and long vowel sounds, r-controlled vowels, and consonant vowel patterns.
  - b. Spell frequently used words with irregular spelling patterns.
  - c. Spell prefixes and suffixes correctly.
  - d. Recognize the use of homophones/homonyms in spelling.
6. Handwriting: Students are expected to demonstrate appropriate handwriting in the writing process.
- a. Print legibly and space letters, words and sentences appropriately.
  - b. Print using left to right progression moving from the top to the bottom of the page.

**Oral Language/Listening and Speaking: The student will demonstrate thinking skills in listening and speaking.**

**Standard 1: Listening – The student will listen for information and for pleasure.**

1. Listen attentively and ask questions for clarification and understanding.
2. Give, restate, and follow simple two- and three-step directions.

**Standard 2: Speaking – The student will express ideas and opinions in group or individual situations.**

1. Speak articulately and audibly using appropriate language, correct usage, enunciation and volume.
2. Provide descriptions using correct sequence of events and details.
3. Use verbal and nonverbal communication in effective ways, such as making announcements, giving directions, or making instructions.

**Standard 3: Group Interaction – The student will use effective communication strategies in pairs and small group context.**

1. Show respect and consideration for others in verbal or physical communication.
2. Ask and answer questions related to the topic and make contributions in small or large group discussions.

**Visual Literacy: The student will interpret, evaluate, and compose visual messages.**

**Standard 1: Interpret Meaning – The student will interpret and evaluate the various ways visual image-makers, including graphic artists, illustrators, and news photographers, represent meaning.**

1. Distinguish between telling and selling messages in such things as commercials, advertisements, and safety and drug public service announcements.
2. Identify the differences in facts and opinions in print and nonprint media.

**Standard 2: Evaluate Media – The student will evaluate visual and electronic media, such as film, as compared with print media.**

1. Make connections between illustrations and print.
2. Identify differences in the presentation or depiction of characters and plot that tells of characters in American and other cultures through listening, viewing, or reading (e.g., read *Cinderella* and watch film). Compare and contrast the two.

## Language Arts

### Grade 3

**Reading/Literature: The student will apply a wide range of strategies to comprehend, interpret, evaluate, appreciate, and respond to a wide variety of texts.**

**\*Standard 1: Phonics/Decoding - The student will apply sound-symbol relationships to decode words.**

1. Phonetic Analysis - Apply knowledge of phonetic analysis to decode unknown words (e.g., common letter/sound relationships, consonants, blends, digraphs, vowels, and diphthongs).
2. Structural Analysis - Apply knowledge of structural analysis to decode unknown words (e.g., syllabication rules, affixes, root words, compound words, spelling patterns, contractions, final stable syllables).
3. Apply knowledge of sentence structures and semantics in conjunction with phonics and structural analysis to decode unknown words.

**Standard 2: Vocabulary - The student will develop and expand knowledge of words and word meanings to increase vocabulary.**

1. Words in Context - Use context clues (the meaning of the text around the word) to determine the meaning of grade-level appropriate words.
2. Affixes - Use prefixes (for example: un-, pre-, bi-, mis-, dis-, en-, in-, im-, ir-), suffixes (for example: -er, -est, -ful, -ness, -ing, -ish, -less), and roots to determine the meaning of words.
3. Synonyms, Antonyms, and Homonyms/Homophones - Determine the meanings of words using knowledge of synonyms, antonyms, homonyms/homophones, and multiple meaning words.
4. Using Resource Materials - Use word reference materials (glossary, dictionary, thesaurus) to determine the meaning and pronunciation of unknown words.

**\*Standard 3: Fluency - The student will identify words rapidly so that attention is directed at the meaning of the text.**

1. Read regularly in independent-level texts (texts in which no more than 1 in 20 words is difficult for the reader) fluently and accurately, and with appropriate rate, change in voice, and expression.
2. Read regularly in instructional-level texts that are challenging yet manageable (texts in which no more than 1 in 10 words is difficult for the reader).

3. Engage in repeated readings of the same text to increase fluency.
4. Accurately and fluently read 300-400 high frequency and/or irregularly spelled words in meaningful texts.
5. Use punctuation cues (e.g., final punctuation, commas, quotation marks) in text with appropriate phrasing as a guide to understanding meaning.

**Standard 4: Comprehension/Critical Literacy - The student will interact with the words and concepts in a text to construct an appropriate meaning.**

1. Literal Understanding

- a. Read and comprehend poetry, fiction, and nonfiction that is appropriately designed for third grade.
- b. Use prereading strategies independently to preview, activate prior knowledge, predict content of text, and establish a purpose for reading.
- c. Recall major points in a text and revise predictions about what is read.
- d. Show understanding by asking questions and supporting answers with literal information from the text.

2. Inferences and Interpretation

- a. Make inferences by connecting prior knowledge and experience with information from the text.
- b. Interpret text, including lessons or morals depicted in fairytales, fables, etc., and draw conclusions from evidence presented in the text.
- \*c. Participate in creative response to text (e.g., art, drama, and oral presentations).

3. Summary and Generalization

- a. Summarize by recognizing main ideas, key concepts, key actions, and supporting details in fiction and nonfiction.
- b. Make generalizations about a text (e.g., theme of a story or main idea of an informational text).
- c. Produce summaries of fiction and nonfiction text, highlighting major points.

4. Analysis and Evaluation

- a. Analyze characters including their traits, relationships, feelings, and changes in text.

- b. Distinguish between fact and opinion in nonfiction text.
- c. Analyze the causes, motivations, sequences, and results of events from a text.

**\*5. Monitoring and Correction Strategies**

- a. Monitor own reading and modify strategies as needed (e.g., recognize when he or she is confused by a section of text, questions whether the text makes sense)
- b. Predict, monitor, and check for understanding using semantic, syntactic, and graphophonic cues.
- c. Clarify meaning by rereading, questioning, and modifying predictions.

**Standard 5: Literature - The student will read to construct meaning and respond to a wide variety of literary forms.**

**\*1. Literary Genres - Demonstrate knowledge of and appreciation for various forms (genres) of literature.**

- a. Recognize characteristics of literary genres and forms (e.g., contemporary realistic fiction, historical fiction, nonfiction, modern fantasy, poetry, drama, and traditional stories such as fairy tales and fables).
- b. Read, understand, and discuss a variety of genres.

**2. Literary Elements - Demonstrate knowledge of literary elements and techniques and how they affect the development of a literary work.**

- a. Compare and contrast plots, settings, or characters presented by different authors and the same author of multiple texts.
- b. Recognize themes that occur across literary works.

Example: Read *Yoko* by Rosemary Wells and *You Are Special* by Max Lucado. Discuss the theme of "everyone is unique" that occurs in both stories.

**3. Figurative Language and Sound Devices - The student will identify figurative language and sound devices in writing and how they affect the development of a literary work.**

Example: Identify and discuss how certain words and rhythmic patterns can be used in a selection to imitate sounds (e.g., rhythm, rhyme, alliteration).

**Standard 6: Research and Information - The student will conduct research and organize information.**

**1. Accessing Information - The student will select the best source for a given purpose.**



- a. Alphabetize to the third letter.
  - b. Use guide words to locate words in dictionaries and topics in encyclopedias.
  - c. Access information from charts, maps, graph, schedules, directions, and diagrams.
  - d. Use the title page, table of contents, glossary, chapter headings, and index to locate information.
  - e. Use text formats as an aid in constructing meaning from nonfiction (expository) text (e.g., heading, subheading, bold print, and italics).
- \*2. Interpreting Information - The student will analyze and evaluate information from a variety of sources.
- a. Begin the research process by selecting a topic, formulating questions, and identifying key words.
  - b. Locate, organize, and synthesize information from a variety of print and nonprint and technological resources (e.g., dictionaries, reference books, atlases, magazines, informational texts, thesaurus, and technology/Internet).
  - c. Compile information into summaries of information.
  - d. Use test-taking strategies by answering different levels of questions, such as open-ended, literal, and interpretive, as well as multiple choice, true/false, and short answer.

**Writing/Grammar/Usage and Mechanics. The student will express ideas effectively in written modes for a variety of purposes and audiences.**

**\*Standard 1: Writing Process. The student will use the writing process to write coherently.**

1. Use a variety of prewriting activities such as brainstorming, clustering, illustrating, using graphic organizers, and webbing.
2. Understand and demonstrate familiarity with the writing process and format of main idea.
3. Compose coherent first drafts with clear focus of beginning, middle, and ending.
4. Revise drafts, changing or adding details and vivid, descriptive words.
5. Proofread/edit writing, using standard editing marks, with peers or teacher.
6. Publish and present writing to peers or adults.

**\*Standard 2: Modes and Forms of Writing. Communicate through a variety of written forms (modes), for various purposes, and to a specific audience or person.**

1. Communicate through a variety of written modes for various audiences and purposes to inform, entertain, –describe, persuade, and to reflect.
2. Write simple narrative, descriptive, persuasive, and creative paragraphs.
3. Write descriptive and creative stories and poems about people, places, things, or experiences that:
  - a. develop a main idea.
  - b. use details to support the main idea.
  - c. have a clear beginning, middle, and ending.
4. Write informational pieces using one reference source and citing the title and author of the source.
5. Write personal, and formal letters, thank-you notes, and invitations including the date, greeting, body, closing, and signature.
6. Write various modes of simple poems.
7. Write narratives that:
  - a. provide a context within which an action occurs.
  - b. include details that develop the plot.
  - c. provide a clear beginning, middle, and end that includes details that develop around a central idea.
8. Use descriptive language such as action verbs, vivid adjectives, and adverbs to make writing interesting.

**\*Standard 3: Grammar/Usage and Mechanics. The student will demonstrate appropriate practices in writing by applying standard English conventions to the revising and editing stages of writing.**

1. Grammar/Usage: Students are expected to recognize and correctly use nouns, pronouns, verbs, adjectives, adverbs, conjunctions, and contractions in their writing.
  - a. Singular, plural, and possessive forms of nouns
  - b. Common and proper nouns
  - c. Subjective (Nominative), objective, and possessive pronouns
  - d. Present, past, and future tense verbs
  - e. Regular, irregular, and helping (auxiliary) verbs
  - f. Past participle of verbs
  - g. Subject-verb agreement

- h. Positive, comparative, and superlative adjectives
  - i. Time, place, and manner adverbs
  - j. Coordinating conjunctions
2. Mechanics: Students are expected to demonstrate appropriate language mechanics in writing.
- a. Correctly capitalize geographical names, holidays, dates, proper nouns, book titles, titles of respect, sentences, and quotations.
  - b. Correctly indent at the beginning of each paragraph.
  - c. Observe left and right hand margins.
3. Punctuation: Students are expected to demonstrate appropriate punctuation in writing.
- a. Periods in abbreviations and sentence endings (terminal punctuation)
  - b. Question and exclamation marks
  - c. Commas in dates, addresses, locations, quotes, introductory words, words in a series, greetings, and closings in a letter
  - d. Apostrophes in contractions and possessives
  - e. Colon in notation of time, formal letter writing, and the introduction of words or concepts in a series, (e.g., bring the following supplies: glue, paper, scissors, etc.)
  - f. Quotation marks around direct quotations, the titles of individual poems, and short stories
4. Sentence Structure: The student will demonstrate appropriate sentence structure in writing.
- a. Correctly write the four basic kinds of sentences (declarative, exclamatory, imperative, and interrogative) with terminal punctuation.
  - b. Begin to use simple, compound, and complex sentences appropriately in writing.
5. Spelling: Students are expected to demonstrate appropriate application of spelling knowledge to the revising and editing stages of writing.
- a. Demonstrate recall of spelling patterns (e.g., grapheme or blend), consonant doubling (e.g., bat + ed = batted), changing the ending of a word from -y to -ies when forming the plural (e.g., carry = carries), and common homophones (e.g., hair/hare).
  - b. Spell phonetically regular multisyllabic words, contractions, and compounds.
  - c. Increase the number of high frequency words spelled correctly.
  - d. Spell words ending in -tion and -sion correctly.
  - e. Use various sources of materials to check and correct spelling.

6. Handwriting: Students are expected to demonstrate appropriate handwriting in the writing process.
  - a. use handwriting/penmanship to copy and/or compose text using correct formation of letters.
  - b. use correct spacing of letters and words in manuscript and cursive writing.

**Oral Language/Listening and Speaking: The student will demonstrate thinking skills in listening and speaking.**

**\*Standard 1: Listening: The student will listen for information and for pleasure.**

1. Listen critically for information and incorporate the information into other activities.
2. Listen actively for pleasure and respond appropriately.

**\*Standard 2: Speaking - The student will express ideas and opinions in group or individual situations.**

1. Speak articulately and audibly using appropriate grammar, enunciation, and volume.
2. Make brief narrative (story) presentations that:
  - a. provide a context for an event that is the subject of the presentation.
  - b. provide insight into why the selected event should be of interest to the audience.
  - c. include well-chosen details to develop characters, setting, and plot.
3. Plan and present dramatic interpretations of experiences, stories, poems, or plays.
4. Organize ideas chronologically (in the order they happened) or around major points of information.
5. Use clear and specific vocabulary to communicate ideas and establish the tone of the message.
6. Provide a clear beginning, middle, and end when making oral presentations and include details that develop a central idea.

**\*Standard 3: Group Interaction - The student will use effective communication strategies in pairs and small group context.**

1. Show respect and consideration for others in verbal and physical communication.
2. Demonstrate thinking skills in listening, speaking, reading, and writing. For example, students are expected to gather information, organize and analyze it, and generate a

simple written or oral report.

**Visual Literacy: The student will interpret, evaluate, and compose visual messages.**

**\*Standard 1: Interpret Meaning - The student will interpret and evaluate the various ways visual image-makers, including graphic artists, illustrators, and news photographers, represent meaning.**

1. Distinguish fact, opinion, and fiction in print and nonprint media in literature and advertising.
2. Interpret and describe important events and ideas gathered from maps, charts and graphics.

**\*Standard 2: Evaluate Media - The student will evaluate visual and electronic media, such as film, as they compare with print messages.**

1. Make connections between illustrations and print.
2. Interpret important events and ideas gathered from maps, charts, graphics, video segments, or technology presentations.
3. Listen to, view, or read stories which tell of characters in American and other cultures.

**\*Standard 3: Compose Visual Messages - The student will create a visual message that effectively communicates an idea.**

Example: Create visual messages to communicate ideas (e.g., developing a product advertisement, creating cartoons to share information, or designing book posters).

**Blueprints for each Criterion-Referenced Test reflect the degree of representation given on the test to each *PASS* standard and objective. To access the current blueprint (when available) go to the State Department of Education Web site at <<http://sde.state.ok.us>>, click on site index, then click “s” to go to student assessment, then click on “Student Tests & Materials” then scroll down to “alignment blueprints.”**

## Language Arts

### Grade 4

**Reading/Literature: The student will apply a wide range of strategies to comprehend, interpret, evaluate, appreciate, and respond to a wide variety texts.**

**Standard 1: Vocabulary - The student will develop and expand knowledge of words and word meanings to increase vocabulary.**

1. Words in Context - Use context clues (the meaning of the text around a word) to distinguish and interpret the meaning of multiple meaning words as well as other unfamiliar words.
2. Affixes, Roots, and Derivatives
  - a. Interpret new words by analyzing the meaning of prefixes and suffixes.
  - b. Use knowledge of root words (e.g., snow, snowbound, snowdrift) and word parts (therm = heat) derived from Greek and Latin to analyze the meaning of complex words (thermometer).
3. Synonyms, Antonyms, and Homonyms/Homophones - Apply knowledge of fourth grade level synonyms, antonyms, homonyms/homophones, multiple meaning words, and idioms to determine the meanings of words and phrases.
- \*4. Using Resource Materials
  - a. Use a thesaurus to determine related words and concepts.
  - b. Determine the meanings and pronunciations of unknown words by using a glossary and/or dictionary.

**\*Standard 2: Fluency - The student will identify words rapidly so that attention is directed at the meaning of the text.**

1. Read aloud regularly in independent-level texts (texts in which no more than 1 in 20 words is difficult for the reader) fluently and accurately, and with appropriate rate, change in voice, and expression.
2. Read aloud regularly in instructional-level texts that are challenging yet manageable (texts in which no more than 1 in 10 words is difficult for the reader).
3. Increase reading speed through daily independent reading practice as monitored by the instructor through peer discussions, teacher conferences, response journals, etc.

**Standard 3: Comprehension/Critical Literacy - The student will interact with the words and concepts in a text to construct an appropriate meaning.**

## 1. Literal Understanding

- a. Use prereading strategies independently to preview, activate prior knowledge, predict content of text, formulate questions that might be answered in the text, establish and adjust purposes for reading (e.g., to find out, to understand, to enjoy, to solve problems).
- b. Read and comprehend poetry, fiction, and nonfiction that is appropriately designed for fourth grade.
- c. Identify and explain the differences in fiction and nonfiction text.

## 2. Inferences and Interpretation

- a. Use prior knowledge and experience to make inferences and support them with information presented in text.
- b. Make interpretations and draw conclusions from fiction and nonfiction text beyond personal experience.
- c. Make inferences and draw conclusions about characters' qualities and actions (i.e., based on knowledge of plot, setting, characters' motives, characters' appearances, and other characters' responses to a character).
- \*d. Participate in creative responses to text (i.e., art, drama, and oral presentation).

## 3. Summary and Generalization

- a. Paraphrase by recognizing main ideas, key concepts, key actions, and supporting details in fiction and nonfiction to recall, inform, or organize ideas.
- b. Support ideas, arguments, and generalizations by reference to evidence in the text.
- c. Represent text information in different ways such as in outline, timeline, or graphic organizer.

## 4. Analysis and Evaluation

- a. Evaluate new information and hypotheses by testing them against known information and ideas.
- b. Compare and contrast information on the same topic after reading several passages or articles.
- c. Identify fact/opinion and cause and effect in various texts.
- d. Analyze and explain the causes, motivations, sequences, and results of events from a text.

\*5. Monitoring and Correction Strategies

- a. Monitor own reading and modify strategies as needed (e.g., recognizes when he or she is confused by a section of text, questions whether the text makes sense, rereading).
- b. Predict, monitor, and check for understanding using semantic, syntactic, and graphophonic cues.

**Standard 4: Literature - The student will read to construct meaning and respond to a wide variety of literary forms.**

\*1. Literary Genres - Demonstrate knowledge of and appreciation for various forms (genres) of literature.

- a. Identify the defining characteristics of a variety of literary genres and forms (e.g. contemporary realistic fiction, historical fiction, nonfiction, modern fantasy, poetry, drama, legends, myths, biography, autobiographies, and traditional stories such as fairy tales and fables).
- b. Read and construct meaning from a variety of genres.

2. Literary Elements - Demonstrate knowledge of literary elements and techniques and how they affect the development of a literary work.

- a. Identify the main events of the plot, including their causes and effects of each event on future actions, and the major theme from the story.
- b. Identify the purposes of different types of texts (e.g., to inform, to explain, to entertain).
- c. Identify themes that occur across literary works.
- d. Use knowledge of the situation, setting, a character's traits, motivations, and feelings to determine the causes for that character's actions.

3. Figurative Language and Sound Devices - The student will identify figurative language and sound devices in writing and how they affect the development of a literary work.

- a. Interpret poetry and recognize poetic styles (e.g., rhymed, free verse, and patterned [cinquain, diamante]).
- b. Define figurative language, such as similes, metaphors, hyperboles, or personification, and identify its use in literary works.
  - Simile: a comparison that uses like or as
  - Metaphor: an implied comparison
  - Hyperbole: an exaggeration for effect
  - Personification: a description that represents a thing as a person



- \*4. Literary Works - The student will read and respond to historically and culturally significant works of literature, compare and contrast story elements from tales of different cultures (e.g., compare/contrast adventures of character types, setting, theme).

**Standard 5: Research and Information - The student will conduct research and organize information.**

1. Accessing Information - Select the best source for a given purpose.
  - a. Understand the organization of and access information from a variety of sources including dictionaries, encyclopedias, atlases, almanacs, tables of contents, glossaries, and indexes.
  - b. Identify key words to be used in searching for resources and information.
  - c. Cite information sources appropriately.
  - d. Use text formats and organization as an aid in constructing meaning from nonfiction (expository) text (e.g., heading, subheading, bold print, and italics).
  - e. Locate information in reference texts by using organizational features, such as prefaces and appendixes.
  - f. Continue to use test-taking strategies by answering different levels of questions, such as open-ended, literal, and interpretive, as well as multiple choice, true/false, and short answer,
- \*2. Interpreting Information - Analyze and evaluate information from a variety of sources.
  - a. Identify a research question and appropriate sources to answer that question.
  - b. Take notes to paraphrase or summarize information.
  - c. Locate, organize, and synthesize information from a variety of print, nonprint and technological resources (e.g., dictionaries, reference books, atlases, magazines, informational texts, thesaurus, and technology/Internet).
  - d. Report on the findings of research in a variety of formats including written, oral, and/or visual presentations.

**Writing/grammar/usage and mechanics. The student will express ideas effectively in written modes for a variety of purposes and audiences.**

- \* Standard 1: Writing Process. The student will use the writing process to write coherently.**

1. Use a variety of prewriting activities such as brainstorming, clustering, illustrating, webbing, and using graphic organizers.
2. Understand and demonstrate familiarity with writing process/format of beginning, middle, and ending.
3. Use common organizational structures for providing information in writing, such as chronological order (beginning, middle, and end), cause/effect, or similarity and difference, and posing and answering questions.
4. Select a focus and an organizational structure based upon purpose, audience, and required format.
5. Write one or more drafts by categorizing ideas, organizing them into paragraphs, and blending paragraphs in to longer text.
6. Revise selected drafts by adding, elaborating, deleting, combining, and rearranging text.
7. Edit/proofread drafts, using standard editing marks, to ensure standard usage, mechanics, spelling, and varied sentence structure.
8. Publish and present writing to peers and adults.

**\* Standard 2: Modes and Forms of Writing. Communicate through a variety of written forms, for various purposes, and to a specific audience or person.**

1. Communicate through a variety of written modes and for various audiences to inform, persuade, entertain, and reflect.
2. Write narrative, creative, descriptive, expository, and persuasive paragraphs and longer compositions that:
  - a. have topic sentences.
  - b. use concrete sensory supporting details.
  - c. provide a context to allow the reader to imagine the event.
  - d. support a logical conclusion.
3. Write creative stories and poems using figurative language (alliteration, personification, simile, and metaphor) and varied word choice to make writing interesting and engaging to audience.
4. Write personal, and formal letters, thank-you notes, and invitations including, the date, greeting, body, closing, and signature.
5. Write informational pieces with multiple paragraphs that:
  - a. provide an introductory paragraph that asks a central question about an idea or issue.
  - b. establish and support a central theme or idea with a topic sentence.

- c. include supporting paragraphs with simple facts, details, and explanations for focus.
- d. present important ideas and events in sequence, chronological order, or order of importance.
- e. provide details and transitions to link paragraphs.
- f. conclude with a paragraph that summarizes the points.
- g. use correct indentation at the beginning of paragraphs and to indicate dialogue.
- h. use more than one source of information, including speakers, books, newspapers, media sources, and online information citing source title, author, and page numbers, if applicable.

6. Write responses to literature that:

- a. demonstrate an understanding of a literary work.
- b. support judgments by referring to both the text and prior knowledge.

7. Write summaries based upon the main idea of a reading selection and its most significant details.

**\* Standard 3: Grammar/Usage and Mechanics. The student will demonstrate appropriate practices in writing by applying Standard English conventions to the revising and editing stages of writing.**

1. Grammar/Usage: Students are expected to recognize and use nouns, pronouns, verbs, adjectives, adverbs, contractions, and conjunctions correctly in their writing.

- a. Singular, plural, and possessive forms of nouns
- b. Common and proper nouns
- c. Nominative (subjective), objective, reflexive, intensive, and possessive pronouns
- d. Subject, direct object, and object of prepositions
- e. Present, past, future, past participle, and present perfect verbs tense
- f. Regular, irregular, and auxiliary (helping) verbs
- g. Simple and complete predicate
- h. Positive, comparative, and superlative adjectives
- i. Time, place, manner, and degree adverbs
- j. Comparative forms of adverbs
- k. Coordinating and correlating conjunctions
- l. Restrictive (essential) and nonrestrictive (nonessential) clauses

- m. prepositional and participial phrases
  - n. Subject-verb agreement
2. Mechanics: Students are expected to demonstrate appropriate language mechanics in writing.
- a. Correctly capitalize the first word of a sentence, the pronoun “I,” geographical names, holidays, dates, proper nouns, book titles, titles of respect, sentences, and quotations.
  - b. Capitalize correctly familial relations, proper adjectives, and conventions of letter writing.
  - c. Indent correctly at the beginning of each paragraph.
  - d. Observe left and right hand margins.
3. Punctuation: Students are expected to demonstrate appropriate punctuation in writing.
- a. Parentheses
  - b. Quotation marks
  - c. Terminal punctuation
  - d. Punctuation in common abbreviations and after an initial
  - e. Apostrophes in contractions and possessives
  - f. Commas
  - g. Colons, and semi-colons
  - h. Hyphens and dashes
4. Sentence Structure: The student will demonstrate appropriate sentence structure in writing.
- a. Use simple, compound, and complex sentences appropriately in writing.
  - b. Create interesting declarative, imperative, interrogative, and exclamatory sentences using words that describe, explain, or provide additional details and connections, such as adjectives, adverbs, appositives, participial phrases, direct objects, prepositional phrases, and conjunctions.
  - c. Correct sentence fragments and run-ons.
  - d. Create sentences with understood subject.
5. Spelling: Students are expected to demonstrate appropriate application of spelling knowledge to the revising and editing stages of writing.

- a. Spell correctly roots, inflections (e.g., -s/es, -ing, -ly, -er), suffixes (e.g., -ment, -ness, -able, -sion, -tion), and prefixes (e.g., dis-, in-, un-, re-, mis-, pre-).
- b. Spell homophones correctly according to usage (e.g., to, too, two; there, their, they're).
- c. Use more complex patterns in producing conventional spellings (e.g., ought = brought, fought; urse = nurse, purse).
- d. Use word reference materials including glossary, dictionary, and technology to check correct spelling.

6. Handwriting: Students are expected to demonstrate appropriate, legible cursive handwriting in the writing process.

**Oral Language/Listening and Speaking: The student will demonstrate thinking skills in listening and speaking.**

**\*Standard 1: Listening: The student will listen for information and for pleasure.**

1. Listen to directions and questions and respond appropriately.
2. Listen critically and respond appropriately to oral communication.
3. Listen and respond to teacher-read stories.

**\*Standard 2: Speaking - The student will express ideas and opinions in group or individual situations.**

1. Speak articulately and audibly before a group using appropriate delivery (enunciation, volume, and movement) and language skills (pronunciation, word choice, and usage).
2. Present effective introductions and conclusions that guide and inform the listener's understanding of important ideas and details.
3. Use traditional structures for conveying information, including cause and effect, similarity and difference, and posing and answering a question.
4. Emphasize points in ways that help the listener or viewer to follow important ideas and concepts (e.g., pausing, hand gestures, inflection volume, body language).
5. Engage the audience with appropriate words, facial expressions, gestures, and eye contact.

**\*Standard 3: Group Interaction - The student will use effective communication strategies in pairs and small group context.**

1. Show respect and consideration for others in verbal and physical communication.
2. Demonstrate thinking skills in listening, speaking, reading, and writing. For example, students are expected to gather information, organize and analyze it, and generate a

simple written or oral report.

3. Participate in story telling, give oral book reports, and present poems, stories, plays, and pantomime.

**Visual Literacy: The student will interpret, evaluate, and compose visual messages.**

**\*Standard 1: Interpret Meaning - The student will interpret and evaluate the various ways visual image-makers, including graphic artists, illustrators, and news photographers, represent meaning and distinguish fact, opinion, and fiction in print and nonprint media.**

**\*Standard 2: Evaluate Media - The student will evaluate visual and electronic media, such as film, as compared with print messages.**

1. Interpret and describe important events and ideas gathered from maps, charts, graphics, video segments, or technology presentations.
2. Compare and contrast print, visual, and electronic media, such as film, with a written story.
3. Listen to, view, or read literature which tells of characters in American and other cultures.
4. Make connections between illustrations and print.

**\*Standard 3: Compose Visual Messages - The student will create a visual message that effectively communicates an idea, selects, organizes, or produces visuals to complement and extend ideas (e.g., book posters, multimedia projects, books, or advertisements).**

**Blueprints for each Criterion-Referenced Test reflect the degree of representation given on the test to each *PASS* standard and objective. To access the current blueprint (when available) go to the State Department of Education Web site at <<http://sde.state.ok.us>>, click on site index, then click “s” to go to student assessment, then click on “Student Tests & Materials” then scroll down to “alignment blueprints.”**

## LANGUAGE ARTS

### Grade 5

**Reading/Literature: The student will apply a wide range of strategies to comprehend, interpret, evaluate, appreciate, and respond to a wide variety of texts.**

**Standard 1: Vocabulary - The student will develop and expand knowledge of words and word meanings to increase their vocabulary.**

#### 1. Words in Context

- a. Use knowledge of word parts and word relationships, as well as context clues (the meaning of the text around a word), to determine the meaning of specialized vocabulary and to understand the precise meaning of grade-level-appropriate words.
- b. Use prior experience and context to understand and explain the figurative use of words such as similes (comparisons that use *like* or *as*: *His feet were as big as boats*), and metaphors (implied comparisons: *The giants steps were thunderous*).

#### 2. Affixes, Roots, and Stems

- a. Interpret new words by analyzing the meaning of prefixes and suffixes.
- b. Apply knowledge of root words to determine the meaning of unknown words within a passage.
- c. Use word origins, including knowledge of less common roots (*graph* = *writing*, *terras* = *earth*) and word parts (*hemi* = *half*, *bio* = *life*) from Greek and Latin to analyze the meaning of complex words (*terrain*, *hemisphere*, *biography*).

#### 3. Synonyms, Antonyms, and Homonyms/Homophones - Apply knowledge of fifth grade level synonyms, antonyms, homonym/homophones, and multiple meaning words to determine the meaning of words and phrases.

#### \*4. Using Resource Materials and Aids

- a. Use a thesaurus to determine related words and concepts.
- b. Determine the meanings, pronunciation, and derivations of unknown words by using a glossary and/or dictionary.

**\*Standard 2: Fluency - The student will identify words rapidly so that attention is directed at the meaning of the text.**

1. Read regularly in independent-level texts (texts in which no more than approximately 1 in 20 words is difficult for the reader) fluently and accurately, and with appropriate

timing, change in voice, and expression.

2. Read regularly in instructional-level texts (texts in which no more than approximately 1 in 10 words is difficult for the reader).
3. Read silently for increased periods of time.
4. Increase reading through daily independent reading practice as monitored by the instructor through peer discussions, teacher conferences, response journals, etc.

**Standard 3: Comprehension/Critical Literacy - The student will interact with the words and concepts in the text to construct an appropriate meaning.**

1. Literal Understanding

- a. Use prereading strategies independently (to preview, activate prior knowledge, predict content of text, formulate questions that might be answered by the text, and establish purpose for reading).
- b. Read and comprehend both fiction and nonfiction that is appropriately designed for fifth grade.
- c. Recognize main ideas presented in a particular segment of text; identify evidence that supports those ideas.
- d. Use the text's structure or progression of ideas such as cause and effect or chronology to organize or recall information.

2. Inferences and Interpretation

- a. Apply prior knowledge and experience to make inferences and respond to new information presented in text.
- b. Draw inferences and conclusions about text and support them with textual evidence and prior knowledge.
- c. Describe elements of character development in written works (e.g., differences between main and minor characters; changes that characters undergo; the importance of a character's actions, motives, stereotypes, and appearance to plot and theme).
- d. Make inferences or draw conclusions about characters' qualities and actions (e.g., based on knowledge of plot, setting, characters' motives, characters' appearances, stereotypes and other characters' responses to a character).
- \*e. Participate in creative response to text (e.g., art, drama, and oral presentation).

3. Summary and Generalization



- a. Summarize and paraphrase information from entire reading selection including the main idea and significant supporting details.
- b. Make generalizations with information gleaned from text.
- c. Support ideas and arguments by reference to relevant aspects of text and issues across texts.
- d. Organize text information in different ways (e.g., timeline, outline, graphic organizer) to support and explain ideas.

#### 4. Analysis and Evaluation

- a. Identify and analyze the characteristics of poetry, drama, fiction, and nonfiction and explain the appropriateness of the literary form chosen by an author for a specific purpose.
- b. Identify the main problem or conflict of the plot and explain how it is resolved.
- c. Contrast the actions, motives, and appearances of characters in a work of fiction and discuss the importance of the contrasts to the plot or theme.
- d. Make observations and connections, react, speculate, interpret, and raise questions in analysis of texts.
- e. Recognize structural patterns found in information text (e.g., cause and effect, problem/solution, sequential order).
- f. Distinguish among facts/inferences supported by evidence and opinions in text.

#### \*5. Monitoring and Correction Strategies

- a. Monitor own reading and modify strategies as needed when understanding breaks down (e.g., rereading a portion aloud, using reference aids, searching for clues, and asking questions).
- b. Predict, monitor, and check for understanding using semantic, syntactic, and graphophonic cues.
- c. Monitor and adjust reading rate according to the purpose for reading and the difficulty of the text.

### **Standard 4: Literature - The student will read to contrast meaning and respond to a wide variety of literary forms.**

1. Literary Genres - Demonstrate knowledge of and appreciation for various forms (genres) of literature.
  - a. Recognize characteristics of literary genres and forms (e.g., contemporary realistic

fiction, historical fiction, nonfiction, modern fantasy, poetry, drama, and traditional stories such as fairy tales, fables, myths, and legends).

- b. Read and construct meaning from a variety of genres.
  - c. Demonstrate an understanding of similarities and differences within and among literary works of various genre and cultures (e.g., in terms of settings, character types, events, and role of natural phenomena).
2. Literary Elements - Demonstrate knowledge of literary elements and techniques and how they affect the development of a literary work.
- a. Develop a knowledge of the literary elements of fiction (plot, problems, attempts to resolve conflicts, resolution, etc.) and the text structure of nonfiction (compare/contrast, cause/effect, sequence, main idea, and details).
  - b. Compare/contrast genres, themes, ideas, and story elements across texts read, listened to, or viewed.
  - c. Identify the author's purpose (persuade, inform, or entertain).
  - d. Recognize and identify the writer's perspective or point of view in a literary selection (e.g., first person, second person) and how it affects the text.
3. Figurative Language and Sound Devices - Identify figurative language and sound devices in writing and how they affect the development of a literary work.
- a. Identify and discuss certain words and rhythmic patterns that can be used in a selection to imitate sounds (e.g., rhythm, rhyme, alliteration).
  - b. Evaluate and identify figurative language, such as simile, metaphors, hyperbole, personification, and idioms.
    - Example: Simile - a comparison that uses like or as
    - Example: Metaphor - an implied comparison
    - Example: Hyperbole – an exaggeration for effect
    - Example: Personification – a description that represents a thing as a person
    - Example: Idioms – an expression that does not mean what it literally says
  - c. Identify the function and effect of common literary devices, such as imagery, metaphor, and symbolism.
    - Symbolism: the use of an object to represent something else; for example, a dove might symbolize peace.
    - Imagery: the use of language to create vivid pictures in the reader's mind.
    - Metaphor: an implied comparison in which a word or phrase is used in place of another, such as *He was drowning in money*.

d. Interpret poetry and recognize poetic styles (e.g., rhymed, free verse, and patterned [cinquain, diamante]).

\*4. Literary Works - Read and respond to historically and culturally significant works of literature.

Example: Compare and analyze literary works from various cultures.

**Standard 5: Research and Information: The student will conduct research and organize information.**

1. Accessing Information - Select the best source for a given purpose.

a. Determine and use appropriate sources for accessing information including, dictionaries, thesaurus, library catalogs and databases, magazines, newspapers, technology/Internet, encyclopedias, atlases, almanacs, tables of contents, glossaries, and indexes.

b. Identify and credit the sources used to gain information.

c. Use text features to access information (e.g., format, italics, heading, subheadings, graphics, sequence, diagrams, illustrations, charts, and maps).

d. Use reference features of printed text, such as citations, endnotes, and bibliographies to locate relevant information about a topic.

e. Use the features of informational texts, such as formats, graphics, diagrams, illustrations, charts, maps, and organization, to find information and support understanding.

Example: Locate specific information in a social studies textbook by using its organization, sections on different world regions, and textual features, such as headers, maps, and charts.

f. Recognize and apply test-taking strategies by answering different levels of questions, such as literal, as well as multiple choice, true/false, short answer, inferential, evaluative, or open-ended.

2. Interpreting Information - Analyze and evaluate information from a variety of sources.

a. Follow multistep directions to accomplish a task (e.g., video games, computer programs, recipes).

b. Select a topic, formulate questions, and synthesize information from a variety of print, nonprint and technological resources (e.g., dictionaries, reference books, atlases, magazines, informational texts, thesaurus, and technology/Internet).

c. Develop notes that include important information on a selected topic.

d. Summarize information from multiple sources into a written report or summary.

e. Create simple documents using a computer and employing organizational features,

such as passwords, entry and pull-down menus, word searches, the thesaurus, and spell checks.

**Writing/Grammar/Usage and Mechanics. The student will express ideas effectively in written modes for a variety of purposes and audiences.**

**Standard 1: Writing Process. The student will use the writing process to write coherently.**

1. Use the writing process to develop, extend, and refine composition skills by using a variety of prewriting strategies, such as brainstorming, clustering, illustrating, webbing, using graphic organizers, notes, and logs.
2. Understand and demonstrate familiarity with the writing process and format (beginning, middle, and ending) and structure of main idea, exposition, body, and conclusion).
3. Use common organizational structures for providing information in writing, such as chronological/sequential order, cause and effect, or similarity and difference, and posing and answering questions.
4. Select a focus and an organizational structure based upon purpose/mode, audience, and required format.
  - a. Write one or more drafts by categorizing ideas and organizing them into paragraphs.
  - b. Blend paragraphs with effective transitions into longer compositions.
5. Edit/proofread drafts, using standard editing marks, to ensure standard usage, mechanics, spelling, and varied sentence structure to improve meaning and clarity.
6. Review, evaluate, and revise selected drafts by adding, elaborating, deleting, combining, and rearranging text for meaning and clarity.
7. Publish and present writing to peers and adults.

**Standard 2: Modes and Forms of Writing. Communicate through a variety of written forms, for various purposes, and to a specific audience or person.**

1. Communicate through a variety of written forms and for various audiences to inform, persuade, entertain, describe and reflect, while adjusting tone and style as appropriate.
2. Write narratives that establish a plot, point of view, setting, conflict, and are written to allow a reader to picture the events of a story. Example: Select a type of narrative to write that is modeled after a genre of literature that has been shared in the classroom such as folktale, myth, science fiction, or mystery. Be sure to include an interesting beginning, develop the central conflict of the story, and establish an ending that resolves the conflict.
3. With creative narratives and poems, use varied word choice, dialogue, and figurative language when appropriate (alliteration, personification, simile, and

metaphor) to make writing engaging to the audience (e.g., inquired or requested instead of asked).

4. Write personal, persuasive, formal letters, thank-you notes, and invitations, including the date, greeting, body, closing, and signature.
5. Write expository (informational) pieces with multiple paragraphs that:
  - a. provide an introductory paragraph.
  - b. establish and support a central theme or idea with a thesis statement.
  - c. include supporting paragraphs with simple facts, details, and explanations.
  - d. present important ideas and events in sequence or in chronological order.
  - e. provide details and transitions to link paragraphs.
  - f. conclude with a paragraph that summarizes the points.
  - g. use correct indentation at the beginning of paragraphs.
  - h. use at least three sources of valid and reliable information including books, newspapers, periodicals, online, and media sources.
6. Write research reports about important ideas, issues, or events that:
  - a. frame questions about an idea or issue to direct the investigation.
  - b. a main idea or topic.
  - c. develop the topic with simple facts, details, examples, and explanations to support the main idea.
  - d. use at least three different types information sources, including speakers, firsthand interviews, reference materials, and online information.
7. Write responses to literature that:
  - a. demonstrate an understanding of a designated literary work.
  - b. support judgments by referring and connecting to prior knowledge.
  - c. develop interpretations and evaluations that exhibit careful reading and understanding.
8. Write persuasive compositions or letters that:
  - a. state a clear position in support of a proposal.
  - b. support a position with relevant evidence and effective emotional appeals in order to persuade.
  - c. organize supporting statements from the most appealing to the least powerful

- d. include and address reader/audience concerns. Example: Interview several students in varying grades about the changes they would like to see in the monthly cafeteria menu choices. Compile the opinions and ideas to compose a persuasive article for the school newspaper.

**Standard 3: Grammar/Usage and Mechanics. The student will demonstrate appropriate practices in writing by applying Standard English conventions to the revising and editing stages of writing.**

1. Grammar/Usage: Students are expected to recognize and use nouns, pronouns, verbs, adjectives, adverbs, and conjunctions in their writing.
  - a. Singular and plural forms of nouns and pronouns
  - b. Nominative (subjective), objective, reflexive, and possessive pronouns
  - c. Relative, intensive, and intensive pronouns
  - d. Subject, indirect, direct object, and object of prepositions
  - e. Transitive and intransitive verbs
  - f. Present, past, future, and present perfect verbs tense
  - g. Positive, comparative, and superlative adjectives
  - h. Time, place, manner, and degree adverbs
  - i. Comparative forms of adverbs
  - j. Subject-verb agreement
  - k. Restrictive (essential) and nonrestrictive (nonessential) clauses and phrases
  - l. Subordinate adverb, adjective, and noun clauses
  - m. Pronoun antecedents and reference
  - n. Coordinating, correlating, and subordinating conjunctions
2. Mechanics: Students are expected to demonstrate appropriate language mechanics in writing.
  - a. Capitalize correctly proper nouns such as titles of books, magazines, newspapers, stories, titles of respect, works of art, regions of the country, political parties, organizations, state colleges universities, languages, races, nationalities, and religions.
  - b. Capitalize correctly proper adjectives.
  - c. Capitalize correctly conventions of letter writing.
  - d. Indent beginning lines of paragraphs.

3. Punctuation: Students are expected to demonstrate appropriate punctuation in writing.
  - a. Parentheses
  - b. Quotation marks
  - c. Terminal punctuation (period, exclamation point, or question mark)
  - d. Punctuation after initials
  - e. Apostrophes in contractions and possessives
  - f. Conventions of letter writing
  - g. Colons, semi-colons, and commas
  - h. Hyphens and dashes
4. Sentence Structure: The student will demonstrate appropriate sentence structure in writing declarative, imperative, exclamatory, and interrogative sentences.
  - a. Create interesting simple, complete, compound, and complex sentences that describe, explain, or provide additional details and connections, such as adjectives, adverbs, appositives, participial phrases, prepositional phrases, simple, complete, and compound predicates, modifiers, pronouns, and conjunctions.
  - b. Create sentences with an understood subject.
  - c. Correct sentence fragments and run-ons.
5. Spelling: Students are expected to demonstrate appropriate application of spelling knowledge to the revising and editing stages of writing.
  - a. Spell previously misspelled words correctly in final writing products.
  - b. Spell correctly roots, inflections (e.g., -s/es, -ing, -ly, -en -er), suffixes (e.g., -ment, -ture, -ate, -able, -sion, -tion), and prefixes (e.g., dis-, in-, un-, re-, mis-, pre-), and syllable constructions (e.g., grad.u.a.tion).
  - c. Spell homophones correctly according to usage (e.g., to, too, two; there, their, they're) and other words that are commonly misspelled in the English language (e.g., until, our)
  - d. Use word reference materials including glossary, dictionary, thesaurus, encyclopedia, and technology to check and correct spelling.
6. Handwriting: Students are expected to demonstrate appropriate, legible handwriting in the writing process.

**Oral Language/Listening and Speaking: The student will demonstrate thinking skills in listening and speaking.**

**\*Standard 1: Listening: The student will listen for information and for pleasure.**

1. Interpret a speaker's verbal and nonverbal message, purpose, and perspective.
2. Listen critically and respond appropriately to oral communication to seek information not already discussed.

**\*Standard 2: Speaking - The student will express ideas and opinions in group or individual situations.**

1. Speak articulately and audibly before a group using appropriate delivery (enunciation, volume, timing, and gestures) and language skills (pronunciation, word choice, and usage).
2. Present effective introductions and conclusions that guide and inform the listener's understanding of important ideas and details by clarifying and supporting spoken ideas with evidence and examples.
3. Use traditional structures for conveying information, including cause and effect, similarity and difference, and posing and answering a question.
4. Engage the audience with appropriate words, phrasing, facial expressions, and gestures.
5. Deliver narrative (story) presentations that establish a situation, develop a plot, point of view, and setting with descriptive words and phrases.
6. Deliver informative presentations about an important topic, issue, or event that frames a question to guide the investigation, establishes a central idea or topic, and develops that topic appropriately.
7. Deliver oral responses to literature that summarizes important events and details, demonstrates an understanding of several ideas communicated in the work, and uses examples from the literature to support conclusions.

**\*Standard 3: Group Interaction - The student will use effective communication strategies in pairs and small group context.**

1. Show respect and consideration for others in verbal and physical communication.
2. Demonstrate thinking skills in listening, speaking, reading, and writing. For example, students are expected to gather information, organize and analyze it, and generate a written or oral report that conveys ideas clearly and relates to the background and interest of the audience.

**Visual Literacy: The student will interpret, evaluate, and compose visual messages.**

**\*Standard 1: Interpret Meaning - The student will interpret and evaluate the various ways visual image-makers, including graphic artists, illustrators, and news photographers, represent meaning.**



1. Distinguish fact, opinion, and fiction in print and nonprint media.
2. Interpret and describe important events and ideas gathered from maps, charts, graphics, video segments, or technology presentation.

**\*Standard 2: Evaluate Media - The student will evaluate visual and electronic media, such as film, as compared with print messages.**

1. Interpret and evaluate the various ways visual image-makers, such as graphic artists, illustrators, and news photographers represent meaning.
2. Compare and contrast print, visual, and electronic media, such as film, with a written story.
3. Listen to, view, or read literature which tells of characters in American and other cultures.
4. Analyze media as sources for information, entertainment, persuasion, interpretation of events, and transmission of culture.

**\*Standard 3: Compose Visual Messages - The student will create a visual message that effectively communicates an idea and produce communications using appropriate technology or media (e.g., developing a class newspaper, videos, or multimedia projects).**

**Blueprints for each Criterion-Referenced Test reflect the degree of representation given on the test to each *PASS* standard and objective. To access the current blueprint (when available) go to the State Department of Education Web site at <<http://sde.state.ok.us>>, click on site index, then click “s” to go to student assessment, then click on “Student Tests & Materials” then scroll down to “alignment blueprints.”**

## LANGUAGE ARTS

### Grade 6

**Reading/Literature:** The student will apply a wide range of strategies to comprehend, interpret, evaluate, appreciate, and respond to a wide variety of texts.

**Standard 1: Vocabulary - The student will develop and expand knowledge of words and word meanings to increase vocabulary.**

#### 1. Words in Context

- a. Use knowledge of word parts and word relationships, as well as context clues (the meaning of the text around a word), to determine the meaning of technical and specialized vocabulary and to understand the precise meaning of grade-level-appropriate words in fiction and nonfiction texts.
- b. Use prior experience and context to analyze and explain the figurative use of words, similes (comparisons that use *like* or *as*: *The Snowplow Reared Up Like a Stallion*), metaphors (implied comparisons: *Peace is a Sunrise*), and multiple meaning words.

#### 2. Word Origins

- a. Recognize the origins and meanings of foreign words frequently used in English. Example: Understand foreign words that are often used in English such as spaghetti (Italian) and rodeo (Spanish).
- b. Apply knowledge of root words to determine the meaning of unknown words within a passage.
- c. Use word origins, including knowledge of less common roots (*graph* = writing, *logos* = the study of) and word parts (*auto* = self, *bio* = life) from Greek and Latin to analyze the meaning of complex words (*autograph*, *autobiography*, *biology*).

#### \*3. Using Resource Materials and Aids

- a. Determine the meanings, pronunciation, and derivations of unknown words by using a glossary, dictionary, and/or thesaurus.
- b. Relate dictionary definitions to context of the reading in order to aid understanding.

**\*Standard 2: Fluency - The student will identify words rapidly so that attention is directed at the meaning of the text.**

1. Read regularly in independent-level texts (texts in which no more than approximately 1 in 10 words is difficult for the reader) fluently and accurately, and with appropriate timing, change in voice, and expression.

2. Read regularly in instructional-level texts (texts in which no more than approximately 1 in 10 words is difficult for the reader; a "typical" sixth grader reads approximately 120 words per minute).
3. Increase silent reading speed through daily independent reading.
4. Read silently for increased periods of time.

**Standard 3: Comprehension/Critical Literacy - The student will interact with the words and concepts in the text to construct an appropriate meaning.**

Read and understand grade-level-appropriate material. Describe and connect the essential ideas, arguments, and perspectives of the text by using the knowledge of text structure, organization, and purpose. At Grade 6, in addition to regular classroom reading, students read a variety of grade-level-appropriate narrative (story) and expository (informational and technical) texts, including classic and contemporary literature, poetry, magazines, newspapers, reference materials, and online information as well as expository (informational and technical) text.

1. Literal Understanding

- a. Use prereading strategies independently (to preview, activate prior knowledge, predict content of text, formulate questions that might be answered by the text, establish purpose for reading).
- b. Read and comprehend both fiction and nonfiction that is appropriately designed for sixth grade.
- c. Recognize main ideas presented in a particular segment of text; identify and assess evidence that supports those ideas.  
Example: Use a graphic organizer to compare an advertisement to the actual product label.
- d. Use the text's structure or progression of ideas, such as cause and effect or chronology to locate or recall information.

2. Inferences and Interpretation

- a. Draw inferences and conclusions about text and support them with textual evidence and prior knowledge.
- b. Make inferences or draw conclusions about characters' qualities and actions (i.e., based on knowledge of plot, setting, characters' motives, characters' appearances, other characters' responses to a character).
- \*c. Interpret and respond creatively to literature (e.g., art, drama, oral presentations, and Reader's Theater).

3. Summary and Generalization

- a. Summarize and paraphrase information including the main idea and significant supporting details of a reading selection.
- b. Make generalizations based on information gleaned from text.
- c. Support reasonable statements and conclusions by reference to relevant aspects of text and examples.
- d. Clarify understanding of text information in different ways (e.g., timelines, outlines, graphic organizer) to support and explain ideas.

#### 4. Analysis and Evaluation

- a. Evaluate the believability of a character and the impact they have on the plot.
- b. Analyze the main problem or conflict of the plot; the effect of the qualities of the characters and explain how the conflict is resolved.
- c. Contrast the actions, motives, and appearances of characters in a work of fiction and discuss the importance of the contrasts to the plot or theme.
- d. Make observations, connections, and react, speculate, interpret, and raise questions in analysis of texts.
- e. Recognize and evaluate structural patterns found in a literary work (e.g., cause/effect, problem/solution, sequential order).
- f. Distinguish among stated facts, inferences supported by evidence, and opinions in text.

#### \*5. Monitoring and Correction Strategies

- a. Monitor own reading and modify strategies as needed when understanding breaks down (e.g., rereading a portion aloud, using reference aids, trying an alternate pronunciation, searching for clues, and asking questions).
- b. Clarify meaning by questioning and rereading; confirm and revise predictions as needed when reading.
- c. Adjust reading rate and determine appropriate strategies according to the purpose for reading, the difficulty of the text, and characteristics of the text.

#### **Standard 4: Literature - The student will read, construct meaning, and respond to a wide variety of literary forms.**

Read and respond to grade-level-appropriate historically or culturally significant works of literature that reflect and enhance a study of history and social science. Clarify ideas and connect them to other literary works. Participate productively in self-directed work teams to

create observable products.

1. Literary Genres - The student will demonstrate a knowledge of and an appreciation for various forms of literature.
  - a. Analyze the characteristics of genres, including short story, novel, drama, poetry, and nonfiction.
  - b. Analyze characteristics of subgenres, including autobiography, biography, fable, folk tale, mystery, and myth.
2. Literary Elements - The student will demonstrate knowledge of literary elements and techniques and how they affect the development of a literary work.
  - a. Identify and explain elements of fiction, including plot, conflict, character, setting, and theme.
  - b. Identify and explain internal and external conflict in the development of a story.
  - c. Determine the author's purpose (persuade, inform, entertain) and point of view, whether explicitly or implicitly stated and how it affects the text.
  - d. Connect, compare, and contrast ideas, themes, and issues across texts.
3. Figurative Language and Sound Devices - The student will identify figurative language and sound devices and will analyze how they affect the development of a literary work.
  - a. Identify and explain figurative language, including symbolism, imagery, metaphor, personification, simile, and idioms.
  - b. Identify and explain sound devices, including alliteration, onomatopoeia, and rhyme.
  - c. Interpret poetry and recognize poetic styles (e.g., rhymed, free verse, and patterned [cinquain, diamante]).
  - d. Identify and describe the function and effect of common literary devices, such as imagery and symbolism.
    - Imagery: the use of language to create vivid pictures in the reader's mind.
    - Symbolism: the use of an object to represent something else; for example, a dove might symbolize peace.
- \*4. Literary Works - The student will read and respond to historically and culturally significant works of literature.
  - a. Analyze and evaluate works of literature and the historical context in which they were written.

- b. Analyze and evaluate literature from various cultures to broaden cultural awareness.
- c. Compare similar characters, settings, and themes from varied literary traditions.

**Standard 5: Research and Information - The student will conduct research and organize information.**

1. Accessing Information - The student will select the best source for a given purpose.
  - a. Use library catalogs and computer databases to locate sources for research topics.
  - b. Access information from a variety of primary and secondary sources to gather information for research topics
  - c. Use organizational strategies as an aid to comprehend increasingly difficult content material.
  - d. Note instances of persuasion, propaganda, faulty reasoning, or misleading information in text.
  - e. Use reference features of printed text, such as citations, endnotes, and bibliographies, to locate relevant information about a topic.
2. Interpreting Information - The student will analyze and evaluate information from a variety of sources.
  - a. Record, organize, and display relevant information from multiple sources in systemic ways (e.g., outlines, graphic organizers, or note cards).
  - b. Identify and credit the reference sources used to gain information.
  - c. Determine the appropriateness of an information source for a research topic.
  - d. Summarize information from multiple sources into a research paper.

**Writing/Grammar/Usage and Mechanics. The student will express ideas effectively in written modes for a variety of purposes and audiences, discuss and keep a list of writing ideas, and use graphic organizers to plan writing. The student will write clear, coherent, and focused papers, and progress through the stages of the writing process. The student will work independently and in self-directed writing teams to edit and revise.**

**\*Standard 1: Writing Process. The student will use the writing process to write coherently.**

1. Use a variety of prewriting strategies such as brainstorming, webbing, or using other graphic organizers to develop an idea appropriate for the intended audience, purpose, and topic.

2. Add details, examples, reasons, and evidence to develop and support an idea.
3. Use organizational patterns such as spatial, chronological/sequential, cause and effect or climactic as appropriate to purpose.
4. Use effective transitions for effective blending of sentences and paragraphs.
5. Use precise and vivid word choices, including figurative language, that convey specific meaning and tone.
6. Use a variety of sentence types and lengths to contribute to fluency and interest.
7. Using standard editing marks, edit for errors in Standard English usage, sentence structure, mechanics, and spelling.
8. Publish and present to peers and adults.

**\*(2) Standard - modes and forms of writing. The student will write for a variety of purposes and audiences using narrative, descriptive, expository, persuasive, and reflective modes. At Grade 6, write narrative, expository, persuasive, argumentative, reflective, and descriptive modes of at least 500 to 700 words, demonstrating a command of Standard English and the research, organization, and drafting strategies outlined in the writing process. Writing demonstrates an awareness of the audience (intended reader) and purpose for writing.**

1. Compose fictional, biographical, and autobiographical narratives that:
  - a. establish and develop a plot and setting with a distinct beginning, middle, and ending.
  - b. establish and develop a setting, characters, and point of view appropriate for the narrative.
  - c. use a range of narrative devices, such as dialogue or suspense.
  - d. adjust tone and style as necessary to make writing interesting and engaging to the audience.
2. Compose expository text including descriptions, explanations, comparison and contrast, and problem and solution compositions that:
  - a. state the thesis (position on the topic), main idea, or purpose.
  - b. explain the situation including supporting paragraphs with facts, details, and explanations.
  - c. organize the composition clearly and appropriately for the purpose of the writing.
  - d. include evidence and supporting details by paraphrasing from speakers, newspapers, magazines, media sources, or referencebooks to support arguments and conclusions. Example: Write successive drafts of a one or two page newspaper article about school carnival activities, including details to support the main topic and allow the

reader to compare and contrast the different carnival activities described or a description of a school event including details to support the main idea.)

3. Compose persuasive/argumentative compositions that:

- a. state a clear position on a proposition or proposal.
- b. support the position with organized and relevant evidence and effective emotional appeals.
- c. predict, identify, and address reader concerns and counterarguments. Example: Write a persuasive paper on how the class should celebrate the end of the school year, including adequate reasons for why the class should participate in the activity described.
- d. Create an advertisement for a product to try to convince readers to buy the product.

4. Compose reflective papers that may address one of the following purposes:

- a. express the individual's insight into conditions or situations.
- b. compare a scene from a work of fiction with a lesson learned from experience.
- c. complete a self-evaluation.

Example: Write a self-evaluation on a personal strength.

5. Write responses to literature, including poetry, that:

- a. include an interpretation that shows careful reading, understanding, and insight.
- b. organize the interpretation around several clear ideas.
- c. develop and justify the interpretation through the use of examples and evidence from the text. Example: After reading a novel, write a final chapter to the book describing what happens to the main character after the point where the book ends and how it is supported by the rest of the narrative.

6. Write for different purposes and to a specific audience or person, adjusting tone and style as necessary to make writing interesting. Example: Write stories, reports, and letters showing a variety of word choices, or review a favorite book or film.

7. Compose summaries of reading material that:

- a. include the main idea and most significant details.
- b. use the student's own words except for direct quotations.

8. Compose friendly and formal letters, and emails; continue to produce other writing forms introduced in earlier grades. Example: Write a formal letter requesting a catalog.



9. Use appropriate essay test-taking and time-writing strategies that:
  - a. address and analyze the question (prompt).
  - b. use organizational methods required by the prompt.
  - c. utilize an editing checklist or assessment rubric, if provided.
10. Use handwriting/penmanship to copy and/or compose text, in manuscript or cursive, using correct spacing and formation of letters.

**\* Standard 3: Grammar/Usage and Mechanics. The student will demonstrate appropriate practices in writing by applying Standard English conventions to the revising and editing stages of writing.**

1. Standard English Usage - Demonstrate correct use of Standard English in speaking and writing as appropriate to sixth grade.
  - a. Identify concrete, abstract, and collective nouns.
  - b. Identify the principal parts of verbs to form verb tenses.
  - c. Identify linking, transitive, and intransitive verbs.
  - d. Identify nominative, objective, and possessive pronouns correctly.
  - e. Correctly use pronoun reference, and make pronouns agree with their antecedents.
  - f. Correctly form and use the positive, comparative, and superlative forms of adjectives.
  - g. Correctly form and use adverb clauses.
  - h. Identify and correctly use appositives, restrictive (essential) and nonrestrictive (nonessential) clauses and phrases.
  - i. Identify direct objects, indirect objects, objects of prepositions, predicate nominatives and predicate adjectives.
  - j. Use prepositional phrases to elaborate written ideas.
  - k. Correctly use all conjunctions.
  - l. Correctly identify and use interjections
  - m. Distinguish commonly confused words (e.g., there, their, they're; two, to, too; accept, except; affect, effect).
  - n. Form regular and irregular plurals correctly.
  - o. Make subjects and verbs agree.

2. Sentence Structure - Demonstrate appropriate sentence structure in writing all forms of sentences (declarative, imperative, exclamatory and interrogative).
  - a. Correct sentence run-ons and fragments.
  - b. Correct dangling and misplaced modifiers.
  - c. Differentiate between dependent, independent, restrictive (essential), and nonrestrictive (nonessential) clauses.
  - d. Write simple and compound sentences.
  - e. compose sentences with simple, complete, and compound predicate.
  - f. Indent paragraphs as needed for specified format.
3. Mechanics and Spelling - Demonstrate appropriate language mechanics in writing.
  - a. Apply the capitalization rules appropriately in writing.
  - b. Punctuate correctly in writing
    - End punctuation
    - Commas to separate words in a series, city and state, quotation, and sentence and to set off nonrestrictive phrases
    - Quotation marks
    - Apostrophes in contractions, possessives, indefinite pronouns, and quotations inside a quotation
    - Conventions of letter writing
  - c. Distinguish correct spelling of commonly misspelled words and homonyms.

**Oral Language/Listening and Speaking: The student will demonstrate thinking skills in listening and speaking.**

Deliver focused, coherent presentations that convey ideas and relate to the background and interests of the audience. Evaluate the content of oral communication. Deliver well-organized formal presentations using traditional speech strategies, including narration, exposition, persuasion, and description. Use the same Standard English conventions for oral speech that are used in writing. Participate independently and in groups to create oral presentations.

**\*Standard 1: Listening - The student will listen for information and for pleasure.**

1. Identify the major ideas and supporting evidence in informative and persuasive messages.

2. Determine the purpose for listening (i.e., gaining information, solving problems; or for enjoying, appreciating, recalling, interpreting, applying, analyzing, evaluating, receiving directions, or learning concepts).
3. Recognize and understand barriers to effective listening (i.e., internal and external distractions, personal biases, and conflicting demands).
4. Evaluate the spoken message in terms of content, credibility, and delivery.

**\*Standard 2: Speaking - The student will express ideas and opinions in group or individual situations.**

1. Analyze purpose, audience, and occasion and consider this information in planning an effective presentation or response.
2. Compose a presentation with a well-organized introduction, body, and conclusion that is appropriate for different purposes, audiences, and occasions.
3. Communicate using appropriate delivery (volume, rate, enunciation, and movement).

**Visual Literacy: The student will interpret, evaluate, and compose visual messages.**

**\*Standard 1: Interpret Meaning - The student will interpret and evaluate the various ways visual image-makers, including graphic artists, illustrators, and news photographers, represent meaning.**

1. Interpret a variety of messages conveyed by visual images (e.g., main concept, details, themes, lessons, or viewpoints).
2. Identify film and television features that characterize different style of dress and genres (e.g., setting in a western or a drama).

**\*Standard 2: Evaluate Media - The student will evaluate visual and electronic media, such as film, as compared with print messages.**

1. Identify the different ways in which people are stereotyped in visual media and consider alternative representations (e.g., clever people wear glasses, super heroes wear capes, scientists wear white coats).
2. Identify basic elements of advertising in visual media (e.g., sales approaches and techniques aimed at children).
3. Evaluate how different media forms influence and inform viewers.
4. Assess how language, medium, and presentation contribute to the message.

**\*Standard 3: Compose Visual Messages - The student will create a visual message that**

effectively communicates an idea and produces communication using technology or appropriate media, such as developing a class newspaper, multimedia reports, or video reports.

Blueprints for each Criterion-Referenced Test reflect the degree of representation given on the test to each *PASS* standard and objective. To access the current blueprint (when available) go to the State Department of Education Web site at <<http://sde.state.ok.us>>, click on site index, then click “s” to go to student assessment, then click on “Student Tests & Materials” then scroll down to “alignment blueprints.”

## LANGUAGE ARTS

### Grade 7

**Reading/Literature:** The student will apply a wide range of strategies to comprehend, interpret, evaluate, appreciate, and respond to a wide variety of texts.

**Standard 1: Vocabulary - The student will expand vocabulary through word study, literature, and class discussion.**

Use a knowledge of word parts and word relationships, as well as context clues (the meaning of the text around a word), to determine the meaning of specialized vocabulary and to understand the precise meaning of grade-level-appropriate words.

1. Words in Context - Verify the meaning of a word in its context, even when its meaning is not directly stated, through the use of definitions, restatement, example, comparison, or contrast.

2. Word Origins

a. Identify the origins and meanings of foreign words frequently used in English and use these words accurately in speaking and writing.

Example: Understand and use in speaking and writing foreign words that are often used in English such as lasagne (Italian), sauerkraut (German), and déjà vu (French).

b. Use knowledge of Greek and Latin word parts and roots to determine the meaning of subject area vocabulary.

Example: Analyze the roots, prefixes, and suffixes of subject-area words such as telescope, geography, and quadrant.

3. Idioms and Comparisons - Identify and explain idioms and comparisons, such as analogies, metaphors, and similes, to infer the literal and figurative meanings of phrases.

a. Idioms: expressions that cannot be understood just by knowing the meanings of the words in the expression, such as *the apple of his eye* or *beat around the bush*.

b. Analogies: comparisons of the similar aspects of two different things

c. Metaphors: implies comparisons, such as, *The street light was my security guard*.

d. Similes: comparisons that use *like* or *as*, such as *A gentle summer breeze feels like a soft cotton sheet*.

**\*Standard 2: Fluency - The student will identify words rapidly so that attention is directed to the meaning of the text.**

1. Read regularly in independent-level materials (texts in which no more than 1 in 20 words is difficult for the reader) fluently and accurately, and with appropriate time,

change in voice, and expression.

2. Read regularly in instructional-level materials that are challenging but manageable (text in which no more than approximately 1 in 10 words is difficult for the reader; a "typical" seventh grader reads 135 words per minute).
3. Increase silent reading speed and comprehension through daily, independent reading.
4. Read silently for increased periods of time.
5. Use punctuation as a cue for pausing and characterization while reading.

**Standard 3: Comprehension - The student will interact with the words and concepts in a text to construct an appropriate meaning.**

Read and understand grade-level-appropriate material. Describe and connect the essential ideas, arguments, and perspectives of the text by using a knowledge of text structure, organization, and purpose. At Grade 7, in addition to regular classroom reading, read a variety of grade-level-appropriate narrative (story) and expository (informational and technical) texts, including classic and contemporary literature, poetry, magazines, newspapers, reference materials, and online information as well as expository (informational and technical) texts.

1. Literal Understanding

- a. Apply prereading strategies when reading both fiction and nonfiction that is appropriately designed for grade level.

Determine the purpose for reading such as to be informed, entertained, or persuaded.

Preview the material and use prior knowledge to make connections between text and personal experience.

- b. Recognize transition words to guide understanding of the text (e.g., as a result, first of all, furthermore).
- c. Show understanding by asking questions and supporting answers with literal information from text.

2. Inference and Interpretation

- a. Make inferences and draw conclusions with evidence drawn from the text and/or student experiences.
- b. Make inferences supported by a character's thoughts, words, and actions or the narrator's description.

3. Summary and Generalization

- a. Summarize the main idea and how it is supported with specific details.
- b. Recall major points in the text and make and revise predictions.
- c. Recognize the importance and relevance of details on the development of the plot.
- d. Support reasonable statements by reference to relevant aspects of text and examples.

#### 4. Analysis and Evaluation

- a. Compare and contrast points of view, such as first person, third person, limited and omniscient, and explain their effect on the overall theme of a literary work.
- b. Evaluate events that advance the plot of a literary work and how those events relate to past, present, or future actions.
- c. Analyze character traits, conflicts, motivations, points of view, and changes that occur within the story and discuss the importance to the plot or theme.
- d. Evaluate the accuracy or appropriateness of the evidence used by the author to support claims and assertions.
- e. Distinguish between stated fact, reasoned judgment, and opinion in text.

#### \*5. Monitoring and Correction Strategies

- a. Monitor the understanding of text and use correcting strategies, such as rereading a portion, using reference aids, or searching for content when needed.
- b. Make, confirm, and revise predictions when reading.
- c. Adjust reading rate and determine appropriate strategies to match the purpose, difficulty, and characteristics of the text.

### **Standard 4: Literature - The student will read, construct meaning, and respond to a wide variety of literary forms.**

Read and respond to grade-level-appropriate historically or culturally significant works of literature that reflect and enhance a study of history and social science. Clarify the ideas and connect them to other literary works. Participate productively in self-directed work teams to create observable products.

1. Literary Genres - Demonstrate a knowledge of and an appreciation for various forms of literature.
  - a. Analyze the characteristics of genres, including short story, novel, drama, poetry, and

nonfiction.

- b. Analyze characteristics of subgenres, including autobiography, biography, fable, folk tale, mystery, and myth.
2. Literary Elements - Demonstrate knowledge of literary elements and techniques and how they affect the development of a literary work.
    - a. Analyze and explain elements of fiction, including plot, conflict, resolution, character, setting, theme, and point of view.
    - b. Identify and explain techniques of direct and indirect characterization in fiction.
    - c. Describe how the author's perspective, argument, or point of view affects the text.
    - d. Analyze inferred and recurring themes in literary works (e.g., bravery, loyalty, historical).
  3. Figurative Language and Sound Devices: The student will identify figurative language and sound devices and will analyze how they affect the development of a literary work.
    - a. Identify and explain the use of figurative language in literary works to convey mood, images, and meaning, including metaphor, personification, and simile.
    - b. Identify and explain the use of sound devices in literary works to convey mood, images, and meaning, including alliteration, onomatopoeia, and rhyme.
    - c. Analyze poetry and evaluate poetic styles (e.g., rhymed, free verse, and patterned [cinquain, diamante]).
  - \*4. Literary Works - The student will read and respond to historically and culturally significant works of literature.
    - a. Analyze and evaluate works of literature and the historical context in which they were written.
    - b. Analyze and evaluate literature from various cultures to broaden cultural awareness.
    - c. Compare similar characters, settings, and themes from varied literary traditions.

**Standard 5: Research and Information - The student will conduct research and organize information.**

1. Accessing Information - Select the best source for a given purpose.
  - a. Use library catalogs and computer databases to locate sources for research topics.
  - b. Access a variety of primary and secondary sources to locate information relevant to research questions.



- c. Gather data for research purposes through interviews (e.g., prepare and organize relevant questions, make notes of responses, and compile the information).
  - d. Use organizational strategies as an aid to comprehend increasingly difficult content material.
  - e. Note instances of persuasion, propaganda, and faulty reasoning in text.
  - f. Use reference features of printed text, such as citations, endnotes, and bibliographies to locate relevant information about a topic.
2. Interpreting Information - The student will analyze and evaluate information from a variety of sources.
- a. Record, organize, and display relevant information from multiple sources in systematic ways (e.g., outlines, graphic organizers, or note cards).
  - b. Interpret and use graphic sources of information such as graphs, maps, timelines, or tables, to address research questions.
  - c. Analyze and paraphrase or summarize information gathered from a variety of sources into a research paper.
  - d. Determine the appropriateness of an information source for a research topic.
  - e. Identify and credit the sources used to gain information for both quoted and paraphrased information in a bibliography using a consistent format.

**Writing/Grammar/Usage and Mechanics. The student will express ideas effectively in written modes for a variety of purposes and audiences. Discuss and keep a list of writing ideas. Write clear, coherent, and focused papers, progressing through the stages of the writing process. Work independently and in self-directed writing teams to edit and revise.**

**Standard 1: writing process. The student will use the writing process to write coherently.**

- 1. Use a writing process to develop composition skills. Students are expected to use prewriting strategies, write and revise multiple drafts, edit, and share their compositions.
- 2. Use details, examples, reasons, and evidence to develop an idea.
- 3. Use spatial, chronological, and climactic organizational patterns as appropriate to purpose.
- 4. Use effective transitions between sentences and paragraphs.
- 5. Use precise word choices, including figurative language, that convey specific meaning and tone.
- 6. Use a variety of sentence structures, types, and lengths to contribute to fluency and interest.
- 7. Edit for errors in Standard English usage, sentence structure, mechanics, and spelling.

8. Publish and present writing to peers and adults.

**\*Standard 2: Modes and Forms of Writing.** The student will write for a variety of purposes and audiences using narrative, descriptive, expository, persuasive, and reflective modes. At Grade 7, write narrative, expository, persuasive, argumentative, reflective, and descriptive modes of at least 500 to 750 words. Introduce biographical and autobiographical narratives and write summaries of grade-level-appropriate reading material. The writing demonstrates a command of Standard English and the research, organization, and drafting strategies outlined in the writing process as well as an awareness of the audience (intended reader) and purpose for writing.

1. Compose fictional, biographical or autobiographical narratives that:

- a. establish a plot using an action segment to create an effective sequence of events.
- b. establish and develop character(s) and setting.
- c. maintain a consistent point of view.
- d. use a range of narrative devices including dialogue, suspense, anecdotes, or foreshadowing.
- e. adjust tone and style as necessary to make writing interesting and engaging to the audience.

Example: After reading a biography or an autobiography of someone who has had special influence on others, use the structure to compose an autobiography of your own.

2. Compose expository text to include research reports that:

- a. state the thesis and include relevant and focused questions about the topic.
- b. communicate clear and accurate perspectives on the subject.
- c. include paraphrased evidence and supporting details compiled through the formal research process, including use of a library catalog, , magazines, newspapers, dictionaries, online sources, and other reference materials.
- d. document sources with reference notes and a bibliography. Example: Write a research report on the impact that television has had on American society. Take a position on the topic, whether positive or negative, and support this view by citing a variety of reference sources.

3. Compose persuasive/argumentative compositions that:

- a. state a clear position or perspective in support of a proposition or proposal.
- b. describe the points in support of the proposition, employing well-articulated evidence, and effective emotional appeal.
- c. predict, identify, and address reader concerns and counterarguments. Example: In preparation for an upcoming student election, choose a candidate and write speeches and

make posters that will make this candidate especially appealing to the other students (the voters).

4. Compose reflective papers that accomplish one of the purposes:
  - a. express the individual's insight into conditions or situations.
  - b. compare a scene from a work of fiction with a lesson learned from experience.
  - c. complete a self-evaluation on a class performance. Example: Compose a reflective essay describing how the student relates to a character in a narrative by comparing personal circumstances and background
5. Write responses to literature, including poetry, that:
  - a. develop interpretations that show careful reading, understanding, and insight.
  - b. organize the interpretation around several clear ideas, premises, or images for the literary work.
  - c. justify interpretation through sustained use of examples and evidence from the text. Example: After reading folk tales from the United States and other countries, write a response to the narratives. Identify the beliefs and values that are highlighted in each folk tale, and develop a theory to explain why similar tales appear in many different cultures.
6. Compose summaries of reading material that:
  - a. include the main ideas and most significant details.
  - b. use the student's own words, except for quotations.
  - c. reflect underlying meaning, not just the superficial details. Example: Demonstrate comprehension of the main idea and details of a subject-specific text and write a summary of a text read from another content area. Make the summary clear enough that it would provide another student with the important information from the chapter.
7. Write for different purposes and to a specific audience or person, adjusting tone and style as necessary to make writing interesting. Example: Write stories and reports showing a variety of word choices, or review a favorite book or film.
8. Write friendly, formal letters, and emails; continue to produce other writing forms introduced in earlier grades.
9. Use appropriate essay test-taking and time-writing strategies that:
  - a. address and analyze the question (prompt).
  - b. use organizational methods required by the prompt.
  - c. utilize an editing checklist or assessment rubric, if provided.
10. Use legible handwriting/penmanship to copy and/or compose text, in manuscript or cursive, using correct spacing and formation of letters.

**\*Standard 3: Grammar/Usage and Mechanics. The student will demonstrate appropriate practices in writing by applying grammatical knowledge to the revising and editing stages of writing.**

1. Standard English Usage - Demonstrate correct use of Standard English in speaking and writing.
  - a. Recognize nominative, possessive, and objective nouns.
  - b. Recognize abstract, concrete, and collective nouns.
  - c. Recognize the principal parts of regular and irregular verbs.
  - d. Use the principal parts of verbs to form verb tenses.
  - e. Identify transitive, intransitive, and linking verbs.
  - f. Make subject and verbs agree.
  - g. Identify direct objects, indirect objects, objects of prepositions, predicate nominatives, predicate adjectives, and object complements.
  - h. Use nominative, objective, and possessive pronouns correctly.
  - i. Make pronouns agree with their antecedents.
  - j. Use correct pronoun reference.
  - k. Correctly form and use the positive, comparative, and superlative forms of adjectives.
  - l. Correctly identify and use interjections.
  - m. Correctly identify and use restrictive (essential) and nonrestrictive (nonessential) clauses, appositives, appositive, participial, and prepositional phrases.
  - n. Correctly use all conjunctions.
  - o. Distinguish commonly confused words (e.g., there, their, they're; two, to, too; accept, except; affect, effect).
2. Sentence Structure - Demonstrate appropriate sentence structure in writing.
  - a. Correct sentence run-ons and fragments.
  - b. Correct dangling and misplaced modifiers.
  - c. Differentiate between dependent and independent clauses.
  - d. Write simple, compound, complete, and complex sentences of varying lengths.
  - e. Write sentences with simple, complete, and compound predicates.
  - f. Indent paragraphs as necessary to conform to specified format.

3. Mechanics and Spelling - Demonstrate appropriate language mechanics in writing.

- a. Apply the capitalization rules appropriately in writing.
- b. Punctuate correctly in writing, including:
  - end punctuation.
  - commas to separate words in a series, city and state, quotation and sentence, and to set off nonrestrictive phrases.
  - quotation marks.
  - colon and semicolon.
  - apostrophes in contractions and possessives.
  - hyphens and dashes
  - conventions of letter writing.
- c. Distinguish correct spelling of commonly misspelled words and homonyms.

**Oral Language/Listening and Speaking: The student will demonstrate thinking skills in listening and speaking.**

Deliver focused, coherent presentations that convey ideas and relate to the background and interests of the audience. Evaluate the content of oral communication and deliver well-organized formal presentations using traditional speech strategies, including narration, exposition, persuasion, and description. Use the same Standard English conventions for oral speech that is used in writing. Participate independently and in groups to create oral presentations.

**\*Standard 1: Listening - The student will listen for information and for pleasure.**

1. Identify the major ideas and supporting evidence in informative and persuasive messages.
2. Listen in order to identify and discuss topic, purpose, and perspective.
3. Recognize and understand barriers to effective listening (i.e., internal and external distractions, personal biases, and conflicting demands).
4. Evaluate the spoken message in terms of content, credibility, and delivery.

**\*Standard 2: Speaking - The student will express ideas and opinions in group or individual situations.**

1. Analyze purpose, audience, and occasion and consider this information in planning an effective presentation or response.
2. Compose a presentation with a well-organized introduction, body, and conclusion that is appropriate for different purposes, audiences, and occasions..
3. Communicate oral presentations to the class using appropriate delivery (volume, rate, enunciation, and movement).

4. Use level-appropriate vocabulary in speech (e.g., metaphorical language, sensory details, or specialized vocabulary).

**Visual Literacy: The student will interpret, evaluate, and compose visual messages.**

**\*Standard 1: Interpret Meaning - The student will interpret and evaluate the various ways visual image-makers, including graphic artists, illustrators, and news photographers, represent meaning.**

1. Interpret a variety of messages conveyed by visual images.
2. Identify film and television features that characterize different style of dress and genres (e.g., setting in a western or a drama).

**\*Standard 2: Evaluate Media - The student will evaluate visual and electronic media, such as film, as compared with print messages.**

1. Identify the different ways in which people are stereotyped in visual media and consider alternative representations (e.g., clever people wear glasses, super heroes wear capes, scientists wear white coats).
2. Identify basic elements of advertising in visual media (e.g., sales approaches and techniques aimed at children).
3. Analyze the effect on the viewer of text, sound, images, and organization in electronic media and discuss the techniques used to create the effects.

**\*Standard 3: Compose Visual Messages - The student will create a visual message that effectively communicates an idea.**

1. Select, organize, or produce visuals such as maps, charts, graphics, video segments, or technology presentations to complement and extend meaning for a selected topic.
2. Use media forms to create a visual message that will compare and contrast ideas and points of view.

**Blueprints for each Criterion-Referenced Test reflect the degree of representation given on the test to each *PASS* standard and objective. To access the current blueprint (when available) go to the State Department of Education Web site at <<http://sde.state.ok.us>>, click on site index, then click “s” to go to student assessment, then click on “Student Tests & Materials” then scroll down to “alignment blueprints.”**

## LANGUAGE ARTS

### Grade 8

**Reading/Literature: The student will apply a wide range of strategies to comprehend, interpret, evaluate, appreciate, and respond to a wide variety of texts. Participate productively in self-directed work teams to create observable products.**

**Standard 1: Vocabulary - The student will expand vocabulary through word study, literature, and class discussion.**

Use a knowledge of word parts and word relationships, as well as context clues (the meaning of the text around a word), to determine the meaning of specialized vocabulary and to understand the precise meaning of grade-level-appropriate words.

1. Words in Context - Verify the meaning of a word in its context, even when its meaning is not directly stated, through the use of definitions, restatement, example, comparison, or contrast.
2. Word Origins - Recognize and analyze the influence of historical events on English word meaning and vocabulary expansion.  
Example: Identify how the early influences of Spanish explorers in North America impacted American English vocabulary by adding words such as *lasso*, *tortilla*, and *patio* and investigate why these particular words were adopted from the Spanish.
3. Idioms and Comparisons - Analyze idioms and comparisons, such as analogies, metaphors, and similes, to infer the literal and figurative meanings of phrases.
  - a. Idioms: expressions that cannot be understood just by knowing the meanings of the words in the expression, such as *Rush hour traffic moves at a snail's pace* or *as plain as day*.
  - b. Analogies: comparisons of the similar aspects of two different things.
  - c. Metaphors: implies comparisons, such as, *The cup of hot tea was the best medicine for my cold*.
  - d. Similes: comparisons that use *like* or *as*, such as, *The ice was smooth as glass before the skaters entered the rink*.

**\*Standard 2: Fluency - The student will identify words rapidly so that attention is directed to the meaning of the text.**

1. Read regularly in independent-level materials (texts in which no more than 1 in 20 words is difficult for the reader) fluently and accurately, and with appropriate time, change in voice, and expression.

2. Read regularly in instructional-level materials that are challenging but manageable (text in which no more than approximately 1 in 10 words is difficult for the reader; a "typical" eighth grader reads 150 words per minute).
3. Increase reading speed and comprehension through daily, independent reading.
4. Read silently for increased periods of time.
5. Use punctuation as a cue for pausing and characterization while reading.

**Standard 3: Comprehension - The student will interact with the words and concepts in the text to construct an appropriate meaning.**

Read and understand grade-level-appropriate material. Describe and connect the essential ideas, arguments, and perspectives of the text by using a knowledge of text structure, organization, and purpose. At Grade 8, in addition to regular classroom reading, read a variety of grade-level-appropriate narrative (story) and expository (informational and technical) texts, including classic and contemporary literature, poetry, magazines, newspapers, reference materials, and online information

1. Literal Understanding

- a. Apply prereading strategies when reading both fiction and nonfiction that is appropriately designed for grade level.

Determine the purpose for reading such as to be informed, entertained, persuaded, or to understand.

Preview the text and use prior knowledge and experience to make connections to text.

- b. Show understanding by asking questions and supporting answers with literal information from text.

2. Inferences and Interpreting

- a. Make inferences and draw conclusions supported by text evidence and student experiences.

- b. Connect, compare, and contrast ideas, themes, and issues across texts.  
Example: Use graphic organizer to show comparisons.

3. Summary and Generalization

- a. Determine the main (or major) idea and how those ideas are supported with specific details.

- b. Paraphrase and summarize text to recall, inform, or organize ideas.



#### 4. Analysis and Evaluation

- a. Distinguish between stated fact, reasoned judgment, and opinion in various texts.
- b. Use text's structure or progression of ideas, such as cause and effect or chronology (sequential order).
- c. Compare/contrast to determine similarities and differences in treatment, scope, or organization.
- d. Problem/solution - offer observations, make connections, react, speculate, interpret, and raise questions in response to text.
- e. Analyze character traits, conflicts, motivations, points of view, and changes that occur within the story.
- f. Analyze the structural elements of the plot, subplot, and climax and explain the way in which conflicts are or are not resolved.

#### \*5. Monitoring and Correction Strategies

- a. Monitor the understanding of text and use correcting strategies, such as rereading a portion, using reference aids, or searching for content when needed.
- b. Make, confirm, and revise predictions when reading.
- c. Adjust reading rate and determine appropriate strategies to match the purpose, difficulty, and characteristics of the text.

#### **Standard 4: Literature: The student will read, construct meaning, and respond to a wide variety of literary forms.**

Read and respond to grade-level-appropriate historically or culturally significant works of literature that reflect and enhance a study of history and social science. Clarify the ideas and connect them to other literary works. Participate in self-directed work teams to create observable products.

1. Literary Genres - The student will demonstrate a knowledge of and an appreciation for various forms of literature.
  - a. Analyze the characteristics of genres, including short story, novel, drama, lyric poetry, nonfiction, historical fiction, and informational texts.
  - b. Identify and distinguish characteristics of subgenres, including autobiography, biography, fable, folk tale, mystery, myth, limericks, tall tales, and plays.
2. Literary Elements - Demonstrate knowledge of literary elements and techniques and how they affect the development of a literary work.

- a. Analyze and explain elements of fiction including plot, conflict, character, mood, setting, theme, point of view, and author's purpose.
  - b. Identify and explain various points of view and how they affect a story's interpretation.
3. Figurative Language and Sound Devices - Identify figurative language and sound devices and analyze how they affect the development of a literary work.
- a. Identify and explain the use of figurative language, in literary works to convey mood, images, and meaning, including metaphor, personification, and simile.
  - b. Identify and explain the use of sound devices in literary works to convey mood, images, and meaning, including alliteration, onomatopoeia, and rhyme.
  - c. Identify and interpret literary devices such as flashback, foreshadowing, symbolism, and imagery.
- \*4. Literary Works - The student will read and respond to historically and culturally significant works of literature.
- a. Analyze and evaluate works of literature and the historical context in which they were written.
  - b. Analyze and determine distinctive and common characteristics of literature from various cultures to broaden cultural awareness.
  - c. Compare similar characters, settings, and themes from varied literary traditions that cross cultures.

**Standard 5: Research and Information: The student will conduct research and organize information.**

1. Accessing Information - Select the best source for a given purpose, locate information relevant to research questioning.
  - a. Access information from a variety of primary and secondary sources, including electronic text, experts, and prime resources, to locate information relevant to research questioning.
  - b. Use text organizers, including headings, graphic features (e.g., boldface, italic type), and tables of contents, to locate and organize information.
  - c. Use organizational strategies to learn and recall important ideas from texts, such as preview, questions, reread, and record, as an aid to comprehend increasingly difficult content material.
  - d. Note instances of persuasion, propaganda, and faulty reasoning in text.

2. Interpreting Information - Analyze and evaluate information from a variety of sources.
  - a. Record, organize, and display relevant information from multiple sources in systematic ways (e.g., outlines, timelines, graphic organizers, or note cards).
  - b. Analyze and paraphrase or summarize information from a variety of sources into a research paper.
  - c. Identify and credit the sources used to gain information (e.g., bibliographies, footnotes, appendix).
  - d. Identify and apply test-taking strategies by answering different types and levels of questions, such as open-ended, literal, and interpretive as well as test-like questions, such as multiple choice, true/false, and short answer.
  - e. Interpret and use graphic sources of information such as maps, graphs, timelines, or tables to address research questions.

**Writing/Grammar/Usage and Mechanics: The student will express ideas effectively in written modes for a variety of purposes and audiences.**

Discuss and keep a list of writing ideas. Write clear, coherent, and focused papers progressing through the stages of the writing process. Work independently and in self-directed writing teams to edit and revise.

**Standard 1: Writing Process - The student will use the writing process to write coherently.**

1. Use a writing process to develop and refine composition skills. Students are expected to use a variety of prewriting strategies such as brainstorming, outlining, free writing, discussing, clustering, webbing, using graphic organizers, notes, logs, and reading to generate ideas and gather information.
2. Develop a main idea/thesis through use of details, examples, reasons, anecdotes, and use patterns as appropriate to purpose such as spatial, chronological, and climactic.
3. Blend paragraphs, with effective transitions, into larger text.
4. Use precise word choices, including figurative language, that convey specific meaning and tone.
5. Use a variety of sentence structures, types, and lengths to contribute to fluency and interest
6. Revise multiple drafts individually and with peers.
7. Edit for errors in Standard English usage, sentence structure, word choice, mechanics, and spelling.

**Standard 2: Modes and Forms of Writing - The student will write for a variety of purposes and audiences using creative, narrative, descriptive, expository, argumentative, persuasive, and reflective modes.**

At Grade 8, write creative, narrative, expository, argumentative, persuasive, reflective, and descriptive papers of at least 500 to 750 words and introduce technical documents. Demonstrate a command of Standard English and the research, organization, and drafting strategies outlined in the writing process. Writing demonstrates an awareness of the audience (intended reader) and purpose for writing.

1. Compose narrative text to include short stories, fictional, biographical or autobiographical narratives that:
  - a. create and develop a plot or sequence of events using well-chosen details that reveal the significance of each event.
  - b. create and develop a character (s), including comparisons, that show the character's (s') beliefs and qualities.
  - c. create and develop an appropriate point of view (e.g., third person limited or first person point of view).
  - d. create and maintain a setting that enhances the narration.
  - e. adjust tone and style to make writing more interesting and engaging to the audience.
  - f. use a range of narrative devices including dialogue, internal monologue, suspense, specific action, physical and background descriptions, and foreshadowing.
  - g. reveal the writer's attitude about the subject.
  - h. use sensory details and precise word choice.

Example: Write an autobiographical account of one of your most memorable first days of school. Describe the day and its importance clearly enough so the reader can see and feel the day from your perspective.

2. Compose expository texts including research reports, technical documents, and other informational texts that:
  - a. define a research thesis (a statement of position on the topic).
  - b. integrate important ideas, concepts, or direct quotations from significant information sources.
  - c. identifies a variety of primary and secondary sources and distinguish the nature and value of each.
  - d. organizes and displays information on charts, tables, maps, and graphs.
  - e. document sources as appropriate to style.

- f. create technical documents using appropriate style and format that identify the necessary sequence or process. Example: using research compiled on public transportation in Oklahoma, compose a documented paper with illustrations and bibliography (works cited).
3. Compose persuasive/argumentative compositions that:
  - a. include a well-defined thesis that makes a clear and knowledgeable appeal.
  - b. present detailed evidence, examples, and reasoning to support effective arguments and emotional appeal.
  - c. provide details, reasons, and examples, arranging them effectively by predicting, identifying, and addressing reader concerns and counter-arguments. Example: Using the research completed on public transportation, compose a persuasive letter to the mayor on why the community should or should not invest more resources into public transportation.
4. Compose reflective papers to:
  - a. express the individual's insight into conditions or situations.
  - b. compare a scene from a work of fiction with a lesson learned from experience.
  - c. complete a self-evaluation on a class performance. Example: Write a reflective paper that analyzes reasons for selections used in a portfolio of works that demonstrate skills in different subjects.
5. Compose responses to literature, including poetry, that:
  - a. demonstrate careful reading and insight into interpretations.
  - b. connect responses to the writer's techniques and to specific textual references.
  - c. make supported inferences about the effects of a literary work on its audience.
  - d. support judgments with references to the text, other works, other authors, or to personal knowledge. Example: After reading a novel, compose an essay describing the different ways the characters speak (slang words or regional dialect) and analyze how this enhances or detracts from the narrative.
6. Write for different purposes and to a specific audience or person, adjusting tone and style as necessary to make writing interesting. Example: Write stories, poetry, and reports, showing a variety of word choices, or review a favorite book or film.
7. Write friendly, formal letters, emails, memos, proposals for change, and continue to produce other writing forms introduced in earlier grades.
8. Use appropriate essay test-taking and time-writing strategies that:
  - a. budget time for prewriting, drafting, revising, and editing.
  - b. prioritize the question/prompt.

- c. identify the common directives from the prompt (Identify command verbs: *explain, compare, evaluate, define, and develop*, etc.).
  - d. analyze the question or prompt and determine the appropriate mode of writing.
  - e. apply appropriate organizational methods to thoroughly address the prompt.
  - f. utilize an editing checklist or assessment rubric, if provided.
9. Use legible handwriting/penmanship to copy and/or compose text, in manuscript or cursive, using correct spacing and formation of letters.

**Standard 3: Grammar/Usage and Mechanics. The student will demonstrate appropriate practices in writing by applying grammatical knowledge to the revising and editing stages of writing.**

1. Standard English Usage - Demonstrate correct use of Standard English in speaking and writing as appropriate to eighth grade.
- a. Use the principal parts of verbs and progressive verb forms.
  - b. Identify and correctly use transitive and intransitive verbs.
  - c. Identify and correctly use linking verbs.
  - d. Make subject and verbs agree.
  - e. Identify personal, reflexive, and intensive pronouns.
  - f. Use nominative, objective, and possessive nouns and pronouns correctly.
  - g. Use correct pronoun reference and make pronouns agree with their antecedents.
  - h. Identify and use abstract, concrete, and collective nouns.
  - i. Correctly form and use the positive, comparative, and superlative forms of adjectives.
  - j. Identify and use appositives and appositive phrases.
  - k. Use verbals (infinitives, gerunds, and participles) to vary sentence structure in writing.
  - l. Correctly identify and use independent, dependent, restrictive (essential) and nonrestrictive (nonessential) clauses and phrases
  - m. Correctly use all conjunctions.
  - n. Distinguish commonly confused words (e.g., there, their, they're; two, to, too; accept, except; affect, effect).
2. Mechanics and Spelling - Demonstrate appropriate language mechanics in writing.
- a. Apply the capitalization rules appropriately in writing.
  - b. Punctuate correctly in writing, including:

- i. Commas
  - ii. Quotation marks
  - iii. Apostrophes
  - iv. Colons and semicolons
  - v. Conventions of letter writing
  - vi. Hyphens, dashes, parentheses
- c. Distinguish correct spelling of commonly misspelled words and homonyms.
3. Sentence Structure - Demonstrate appropriate sentence structure in writing.
- a. Correct sentence run-ons and fragments.
  - b. Correct dangling and misplaced modifiers.
  - c. Differentiate between dependent, independent restrictive (essential) and nonrestrictive (nonessential) clauses.
  - d. Simple, compound, complex, and compound-complex sentences.
  - e. Compose sentences with simple, complete, and compound predicates.

**Oral Language/Listening and Speaking: The student will demonstrate thinking skills in listening and speaking.**

Deliver focused, coherent presentations that convey ideas and relate to the background and interests of the audience. Evaluate the content of oral communication and deliver well-organized formal presentations using traditional speech strategies, including narration, exposition, persuasion, and description. Use the same Standard English conventions for oral speech that is used in writing. Participate independently and in groups to create oral presentations.

**\*Standard 1: Listening - The student will listen for information and for pleasure.**

1. Identify the major ideas and supporting evidence in informative and persuasive messages.
2. Listen in order to identify and discuss topic, purpose, and perspective.
3. Recognize and understand barriers to effective listening (i.e., internal and external distractions, personal biases, and conflicting demands).
4. Evaluate the spoken message in terms of content, credibility, and delivery.

**\*Standard 2: Speaking - The student will express ideas and opinions in group or individual situations.**

1. Analyze purpose, audience, and occasion and consider this information in planning an effective presentation or response.
2. Compose a presentation with a well-organized introduction, body, and conclusion that is appropriate for different purposes, audiences, and occasions.
3. Communicate oral presentations to the class using appropriate delivery (volume, rate, enunciation, and movement).
4. Use level-appropriate vocabulary in speech (e.g., metaphorical language, sensory details, or specialized vocabulary).
5. Adjust message wording and delivery according to particular audience and purpose.

**Visual Literacy: The student will interpret, evaluate, and compose visual messages.**

**\*Standard 1: Interpret Meaning - The student will interpret and evaluate the various ways visual image-makers, including graphic artists, illustrators, and news photographers, represent meaning.**

1. Interpret how language choice is used to enhance visual media (e.g., language or particular television or film genre, the use of emotional or logical arguments in commercials).
2. Identify and explain reasons for varied interpretations of visual media (e.g., different purposes or circumstances while viewing, influence of personal knowledge and experiences, focusing on different stylistic features).

**\*Standard 2: Evaluate Media - The student will evaluate visual and electronic media, such as film, as compared with print messages.**

1. Use a variety of criteria to evaluate and form viewpoints of visual media (e.g., evaluates the effectiveness of informational media, such as Web sites, documentaries, news programs, and recognizes a range of viewpoints and arguments).
2. Establish criteria for selecting or avoiding specific programs.
3. Assess how language medium and presentation contribute to the message.

**\*Standard 3: Compose Visual Messages - The student will create a visual message that effectively communicates an idea.**

1. Produce visual images, messages, and meanings that communicate with others.
2. Use media forms to create a visual message that will compare and contrast ideas and points of view.



**Blueprints for each Criterion-Referenced Test reflect the degree of representation given on the test to each *PASS* standard and objective. To access the current blueprint (when available) go to the State Department of Education Web site at <<http://sde.state.ok.us>>, click on site index, then click “s” to go to student assessment, then click on “Student Tests & Materials” then scroll down to “alignment blueprints.”**

## LANGUAGE ARTS

### Grade 9

**Reading/Literature: The student will apply a wide range of strategies to comprehend, interpret, evaluate, appreciate, and respond to a variety of texts.**

Apply knowledge of word origins (words from other languages, history, or literature) to determine the meaning of new words encountered in reading and use of those words accurately.

**Standard 1: Vocabulary - The student will expand vocabulary through word study, literature, and class discussion.**

1. Apply a knowledge of Greek (e.g., tele/phone, micro/phone), Latin (e.g., flex/ible), and Anglo-Saxon (e.g., un/friend/ly) roots, prefixes, and suffixes to determine word meanings.
2. Use word meanings within the appropriate context and verify those meanings by definition, restatement, example, and analogy.
3. Expand vocabulary through wide reading, listening, and discussing.
4. Use reference material such as glossary, dictionary, thesaurus, and available technology to determine precise meaning and usage.
5. Identify the relation of word meanings in analogies, homonyms, synonyms/antonyms, and connotations and denotations.

**Standard 2: Comprehension: The student will interact with the words to construct an appropriate meaning.**

Read and understand grade-level-appropriate material. Analyze the organizational patterns and evaluate author's argument and positions. At Grade 9, in addition to regular classroom reading, read a wide variety of classic and contemporary literature, poetry, magazines, newspapers, reference materials, and online information as well as expository (informational and technical) texts.

1. Literal Understanding
  - a. Examine the structures and format of functional workplace documents, including graphics and headers, and explain how authors use the features to achieve their purpose.
  - b. Draw upon own background to provide connections to text.
  - c. Monitor reading strategies and modify them when understanding breaks down such as rereading, using resources, and questioning.

- d. Recognize text structures such as compare and contrast, cause and effect, and chronological ordering.
- e. Use study strategies such as skimming and scanning, note taking, outlining, and using study-guide questions to better understand texts.

## 2. Inferences and Interpretation

- a. Analyze characteristics of text, including its structure, word choice, and intended audience.
- b. Draw inferences such as conclusions, generalizations, and predictions, and support them with text evidence and personal experience.
- c. Recognize influences on a reader's response to a text (e.g., personal experience and values; perspective shaped by age, gender, class, or nationality).

## 3. Summary and Generalization

- a. Identify the main idea and supporting details by producing summaries of text.
  - b. Use text features and elements to support inferences and generalizations about information.
  - c. Summarize and paraphrase complex, implicit hierarchic structures in informational texts, including relationships among concepts and details in those structures.

## 4. Analysis and Evaluation

- a. Discriminate between fact and opinion and fiction and nonfiction.
- b. Recognize deceptive and/or faulty arguments in persuasive texts.
- c. Analyze the structure and format of informational and literary documents and explain how authors use the features to achieve their purposes.
- d. Identify techniques (e.g., language, organization, tone, context) used to convey point of view or impressions.

### **Standard 3: Literature - The student will read, construct meaning, and respond to a wide variety of literary forms.**

Read and respond to grade-level-appropriate historically or culturally significant works of British, American, and world literature. Conduct in-depth analysis of themes, styles, and trends of these works across historical periods. Participate productively in self-directed work teams to create observable products.

- 1. Literary Genres - Demonstrate a knowledge of and an appreciation for various forms of literature.

- a. Analyze the characteristics of genres including short story, novel, drama, poetry, and essay.
  - b. Analyze the characteristics of subgenres including tragedy, sonnet, epic, lyric, and narrative poetry.
2. Literary Elements - Demonstrate knowledge of literary elements and techniques and show how they affect the development of a literary work.
- a. Recognize the theme (general observation about life or human nature) within a text.
  - b. Explain how author's voice and/or choice of a narrator affect the characterization and the point of view, tone, plot, mood and credibility of a text.
  - c. Recognize and understand the significance of various literary devices, including figurative language, imagery, allegory (the use of fictional figures and actions to express truths about human experiences), and symbolism (the use of a symbol to represent an idea or theme), and explain their appeal.
  - d. Analyze interactions between characters in a literary text and explain the way those interactions affect the plot in narrative text.
  - e. Analyze characters and identify author's point of view.
  - f. Identify literary forms and terms such as author, drama, biography, autobiography, myth, tall tale, dialogue, tragedy and comedy, structure in poetry, epic, ballad, protagonist, antagonist, paradox, analogy, dialect, and comic relief as appropriate to the selections being read.
3. Figurative Language and Sound Devices - Identify figurative language and sound devices and analyze how they affect the development of a literary work.
- a. Identify and explain figurative language including metaphor, personification, and simile.
  - b. Identify and explain sound devices including alliteration, onomatopoeia, and rhyme.
  - c. Identify the melodies of literary language, including its use of evocative words, rhythms and rhymes.
  - d. Recognize and interpret poetic elements such as metaphor, simile, personification, and the effect of sound on meaning.
4. Literary Works - The student will read and respond to historically and culturally significant works of literature.
- a. Analyze and evaluate works of literature and the historical context in which they were written.

- b. Analyze and evaluate literature from various cultures to broaden cultural awareness.
- c. Compare works that express the recurrence of archetypal (universal modes or patterns) characters, settings, and themes in literature and provide evidence to support the ideas expressed in each work.

**Standard 4: Research and Information: The student will conduct research and organize information. ☐☐**

1. Accessing Information - Select the best source for a given purpose.
  - a. Access information from a variety of primary and secondary sources.
  - b. Skim text for an overall impression and scan text for particular information.
  - c. Use organizational strategies as an aid to comprehend increasingly difficult content material (e.g., compare/contrast, cause/effect, problem/solution, sequential order).
2. Interpreting Information - The student will analyze and evaluate information from a variety of sources.
  - a. Summarize, paraphrase, and/or quote relevant information.

- b. Determine the author's viewpoint to evaluate source credibility and reliability.
  - c. Organize and convert information into different forms such as charts, graphs and drawings to create multiple formats to interpret information for multiple audiences and purposes, and cite sources completely.
  - d. Identify complexities and inconsistencies in the information and the different perspectives found in each medium, including almanacs, microfiche news sources, in-depth field studies, speeches, journals, technical documents, or Internet sources.
  - e. Draw conclusions from information gathered.

**Writing/Grammar/Usage and Mechanics. The student will express ideas effectively in written modes for a variety of purposes and audiences.**

Discuss ideas for writing with other writers. Write coherent and focused essays that show a well-defined point of view and tightly reasoned argument. Use the stages of the writing process. Work independently and in self-directed writing teams to edit and revise.

**Standard 1: Writing Process. The student will use the writing process to write coherently.**

1. Use a writing process to develop and refine composition skills. Students are expected to:

- a. use a variety of prewriting strategies such as brainstorming, outlining, free writing, discussing, clustering, webbing, using graphic organizers, notes, logs, or reading to generate ideas and gather information.
  - b. determine main idea by evaluating results of prewriting activities to select an appropriate topic.
  - c. identify audience and purpose for writing:
    - i. consider specific purposes for writing (e.g., to reflect, inform, explain, persuade, or share an experience or emotion)
    - ii. understand the characteristics of a specific audience for the writing task.
  - d. identify appropriate mode/genre.
  - e. develop multiple drafts, individually and collaboratively, to categorize ideas, organize them into paragraphs, and blend paragraphs into larger text.
  - f. revise drafts.
  - g. edit for specific purposes to ensure standard usage, varied sentence structure, appropriate word choice, mechanics, and spelling.
  - h. refine selected pieces to publish for general and specific audiences.
2. Use elaboration to develop an idea:
- a. draft a text with a clear controlling idea or thesis.
  - b. develop a coherent progression of ideas applying organizational strategies such as spatial, chronological, order of importance, compare/contrast, logical order, cause/effect, or classification/division.
  - c. apply different methods of support, such as facts, reasons, examples, sensory details.
  - d. apply a consistent and appropriate point of view.
3. Demonstrate organization, unity, and coherence by using transitions and sequencing:
- a. Read the draft from the intended audience's point of view to evaluate clarity of purpose.
  - b. Evaluate whether ideas and organizational patterns are clear and support the overall purpose of the piece.
  - c. Evaluate whether topic sentences, transitions within and between paragraphs, overall sequencing, and the progression of ideas is clear, focused, smooth and coherent.
  - d. Evaluate whether ideas are adequately developed. Move, add, delete, or replace text for clarity, audience, and purpose.
  - e. Evaluate whether word choice/figurative language is precise, compelling, effective, and appropriate.
  - f. Evaluate whether sentence structures are varied in type, length, and complexity.
4. Editing, Proofreading, and Evaluating:
- a. Apply Standard English usage, correct spelling and usage in text. Correct errors in grammatical conventions (e.g., complete sentences, independent and dependent (restrictive/nonrestrictive) clauses, conjunctions for subordination, correlation, and coordination, subject verb agreement, consistent verb tense, pronoun-antecedent relationship, noun and pronoun agreement, use of prepositional phrases, adverbs, and adjectives).
  - b. Employ specified proofreading strategies and consults resources (e.g., spell checks, personal spelling lists, or dictionaries) to correct errors in spelling, capitalization, and punctuation, including punctuation of quotations
  - c. Use a specified format for in-text citation of source materials, for bibliographies, and for lists of works cited. Check against original source for accuracy
  - d. Demonstrate an understanding of the ethics of writing by creating a document free from plagiarism.

5. Use a variety of sentence structures, types, and lengths to contribute to fluency and interest.
6. Evaluate own writing and others' writing (e.g., determine the best features of a piece of writing, determine how own writing achieves its purpose, ask for feedback, and respond to classmates' writing).

**Standard 2: Modes and Forms of Writing. The student will write for a variety of purposes and audiences using narrative, descriptive, expository, persuasive, and reflective modes.**

At Grade 9, combine the rhetorical strategies of narration, exposition, persuasion, reflection, and description to produce text of at least 500 to 750 words. Final drafts are formatted appropriately for the mode. Begin writing documents related to career development. Demonstrate a command of Standard English and the research, organization, and drafting strategies outlined in the writing process. Writing demonstrates an awareness of the audience (intended reader) and purpose for writing.

1. Compose fictional, biographical, or autobiographical narratives or short stories that:
  - a. create and develop characters including character motivation, gestures, and feelings.
  - b. create and develop a plot utilizing the key elements: exposition, rising action, climax, falling action, resolution, and conclusion.
  - c. create and develop an appropriate point of view.
  - d. create and develop a setting with a narrative that is relevant to the overall meaning of the work.
  - e. use a range of narrative devices such as dialogue, suspense, foreshadowing, characterization, and flashback.
2. Compose expository compositions, including analytical essays and research reports that:
  - a. integrates evidence in support of a thesis including information on all relevant perspectives.
  - b. quotes, summarizes, and paraphrases information and ideas from a variety of primary and secondary sources accurately and coherently.
  - c. integrates a variety of suitable, valid reference sources, including word, pictorial, audio, and Internet sources, to locate information in support of topic.
  - d. integrates visual aids by using technology to organize and record information on charts, data tables, maps, and graphs.
  - e. identifies and addresses reader's potential misunderstandings, biases, and expectations.
  - f. uses technical terms and notations accurately.
3. Compose persuasive/argumentative compositions that:
  - a. include a well-defined thesis that makes a clear and knowledgeable appeal in a sustained and effective fashion.
  - b. use exposition, narration, and description to support the main argument.
  - c. clarify and defend positions with precise and relevant evidence, including facts, expert opinions, quotations, expressions of commonly accepted beliefs, and logical reasoning.
  - d. effectively address reader's concerns, counterclaims, biases, and expectations
4. Create documents related to career development that:
  - a. use a conventional format to write a formal letter, email, or memorandum.

- b. present information purposefully and in brief to meet the need of the intended audience.
  - c. use appropriate vocabulary and professional writing etiquette (e.g. formal language, appropriate salutation, and closing, etc.).
5. Write reflective papers that may address one of the following purposes:
- a. express the individual's insight into conditions or situations, detailing the author's role in the outcome of the event.
  - b. connect lessons from literature, history, current events, and movies/media to personal experiences and ideas.
  - c. complete a self-evaluation on a class performance.
6. Write responses to literature that:
- a. demonstrate the significant ideas of literary works.
  - b. support important ideas and viewpoints through accurate and detailed reference to the text or to other works.
  - c. demonstrate awareness of author's style and an appreciation of the effects created.
  - d. identify and assess the impact of ambiguities, nuances, and complexities within the text.
7. Write for different purposes and to a specific audience or person, adjusting tone and style as necessary to make writing interesting.
8. Write friendly, formal letters, emails, and memorandum, and continue to produce other writing forms introduced in earlier grades.
9. Use appropriate essay test-taking and time-writing strategies that:
- a. budget time for prewriting, drafting, revising, and editing.
  - b. prioritize the question/prompt.
  - c. identify the common directives from the prompt (identify command verbs: *explain, compare, evaluate, define, and develop*, etc.).
  - d. analyze the question or prompt and determine the appropriate mode of writing.
  - e. apply appropriate organizational methods to thoroughly address the prompt.
  - f. evaluate work using editing checklist or rubric if available.
10. Write documented papers incorporating the techniques of Modern Language Association (MLA) or similar parenthetical styles.

**Standard 3: Grammar/Usage and Mechanics. The student will demonstrate appropriate practices in writing by applying grammatical knowledge to the revising and editing stages of writing and participate independently and in groups to create oral presentations.**

1. Standard English Usage - Demonstrate correct use of Standard English in speaking and writing.



- a. Distinguish commonly confused words (e.g., there, their, they're; two, too, to; accept, except; affect, effect).
- b. Use correct verb forms and tenses.
- c. Use correct subject-verb agreement.
- d. Use active and passive voice.
- e. Identify and correctly use linking, transitive, and intransitive verbs.
- f. Use nominative, objective, and possessive nouns and pronouns correctly.
- g. Use abstract, concrete, and collective nouns correctly.
- h. Correct pronoun/antecedent agreement and clear pronoun reference.
- i. Correct types, forms, and cases of pronouns
- j. Use correct forms of positive, comparative, and superlative adjectives.

2. **Mechanics and spelling.** Demonstrate appropriate language mechanics in writing.

- a. Apply capitalization rules appropriately in writing.
- b. Use correct formation of plurals.
- c. Demonstrate correct use of punctuation and recognize its effect on sentence structure including:
  - i. commas
  - ii. quotation marks
  - iii. apostrophes, colons, and semicolons
  - iv. hyphens, dashes, parentheses, and brackets
- d. Demonstrate correct use of punctuation in research writing including:
  - (i) formal outline
  - (ii) parenthetical documentation
  - (iii) works cited/bibliography
- e. Use correct spelling including:
  - (i) commonly misspelled words and homonyms

(ii) spell consonant changes correctly Example:recede/recession; transmit/transmission.

(iii) spell correctly Greek and Latin derivatives (words that come from a base or common root word by applying correct spelling of bases and affixes (prefixes and suffixes).

3. Sentence structure. Demonstrate appropriate sentence structure in writing.

- a. Identify and use parallel structure.
- b. Correct dangling and misplaced modifiers.
- c. Correct run-on sentences.
- d. Correct fragments.
- e. Correct comma splices.
- f. Differentiate between dependent/independent and restrictive/nonrestrictive (essential/nonessential) clauses.
- g. Write effective simple, compound, complex, and compound-complex sentences.

**Oral Language/Listening and Speaking - The student will demonstrate thinking skills in listening and speaking.**

Formulate thoughtful judgment about oral communication. Deliver focused and coherent presentations that convey clear and distinct perspectives and solid reasoning. Deliver polished formal and extemporaneous presentations that combine the traditional speech strategies of narration, exposition, persuasion, and description. Use gestures, tone, and vocabulary appropriate to the audience and purpose. Use the same Standard English conventions for oral speech that are used in writing.

**Standard 1: Listening - The student will listen for information and for pleasure.**

1. Focus attention on the speaker's message.
2. Use knowledge of language and develop vocabulary to accurately interpret the speaker's message.
3. Listen and respond appropriately to presentations and performances of peers or published works such as original essays or narratives, interpretations of poetry, and individual or group performances.
4. Monitor speaker's message and clarity and understanding to formulate and provide effective verbal and nonverbal feedback.
5. Use feedback to evaluate own effectiveness and set goals for future presentations.

**Standard 2: Speaking - The student will express ideas and opinions in group or individual**

**situations.**

1. Use formal, informal, standard, and technical language effectively to meet the needs of purpose, audience, occasion, and task.
2. Prepare, organize, and present a variety of informative messages effectively.
3. Analyze purpose, audience, and occasion to choose effective verbal and nonverbal strategies such as pitch and tone of voice, posture, and eye contact.

**Visual Literacy: The student will interpret, evaluate, and compose visual messages.**

**Standard 1: Interpret Meaning - The student will interpret and evaluate the various ways visual image-makers including graphic artists, illustrators, and news photographers represent meaning.**

1. Document the use of stereotypes and biases in visual media (e.g., distorted representations of society; imagery and stereotyping in advertising; elements of stereotypes such as physical characteristics, manner of speech, beliefs and attitudes).
2. Indicate how symbols, images, sounds, and other conventions are used in visual media (e.g., time lapse in films; set elements that identify a particular time period or culture).

**Standard 2: Evaluate Media - The student will evaluate visual and electronic media, such as film, as compared with print messages.**

1. Select people with special interests and expectations who are the target audience for particular messages or products in visual media.
2. Define and design language and content that reflect the target audience for particular messages and products (e.g., in advertising and sales techniques aimed specifically towards teenagers; in products aimed toward different classes, races, ages, genders; in the appeal of popular television shows and films for a particular audience).

**Standard 3: Compose Visual Messages - The student will create a visual message that effectively communicates an idea.**

1. Create media products to include a billboard, cereal box, short editorials, and a three-minute documentary or print ad to engage specific audiences.
2. Create, present, test, and revise a project and analyze a response, using data-gathering techniques such as questionnaires, group discussions, and feedback forms.

## LANGUAGE ARTS Grade 10

**Reading/Literature: The student will apply a wide range of strategies to comprehend, interpret, evaluate, appreciate, and respond to a wide variety of texts.**

**Standard 1: Vocabulary - The student will expand vocabulary through word study, literature, and class discussion.**

Apply a knowledge of word origins (words from other languages, history, or literature) to determine the meaning of new words encountered in reading and use of those words accurately.

1. Apply a knowledge of Greek (e.g., tele/phone, micro/phone), Latin (e.g., flex/ible), and Anglo-Saxon (e.g., un/friend/ly) roots, prefixes, and suffixes to determine word meanings.
- \*2. Research word origins as an aid to understanding meaning, derivations, and spelling as well as influences on the English language.
3. Use reference material such as glossary, dictionary, thesaurus, and available technology to determine precise meaning and usage.
4. Discriminate between connotative and denotative meanings and interpret the connotative power of words.
5. Use word meanings within the appropriate context and verify these meanings by definition, restatement, example, and analogy.

**Standard 2: Comprehension - The student will interact with the words and concepts on the page to understand what the writer has said.**

Read and understand grade-level-appropriate material. Analyze the organizational patterns and evaluate authors' argument and position. At Grade 10, in addition to regular classroom reading, read a wide variety of classic and contemporary literature, poetry, magazines, newspapers, reference materials, and online information as well as expository (informational and technical) texts.

1. Literal Understanding
  - a. Identify the structures and format of various informational documents and explain how authors use the features to achieve their purpose.
  - b. Understand specific devices an author uses to accomplish purpose (persuasive techniques, style, literary forms or genre, portrayal of themes, language).
  - c. Use a range of automatic monitoring and self-correcting methods (e.g., rereading, slowing down, subvocalizing, consulting resources, questioning).
  - d. Recognize signal/transitional words and phrases and their contributions to the

meaning of the text (e.g., however, in spite of, for example, consequently).

## 2. Inferences and Interpretation

- a. Use elements of the text to defend responses and interpretations.
- b. Draw inferences such as conclusions, generalizations, and predictions, and support them with text evidence and personal experience.
- \*c. Investigate influences on a reader's response to a text (e.g., personal experience and values; perspective shaped by age, gender, class, nationality).

## 3. Summary and Generalization

- a. Determine the main idea, locate and interpret minor or subtly stated details in complex passages.
- b. Use text features and elements to support inferences and generalizations about information.
- c. Summarize and paraphrase complex, implicit, hierarchic structures in informational texts, including relationships among concepts and details in those structures.

## 4. Analysis and Evaluation

- a. Discriminate between fact and opinion and fiction and nonfiction.
- b. Evaluate deceptive and/or faulty arguments in persuasive texts.
- c. Analyze the structure and format of informational and literary documents and explain how authors use the features to achieve their purposes.
- d. Analyze techniques (e.g., language, organization, tone, context) used to convey opinions or impressions.

### **Standard 3: Literature - The student will read, construct meaning, and respond to a wide variety of literary forms.**

Read and respond to grade-level-appropriate historically or culturally significant works of British, American, and world literature. Conduct in-depth analysis of themes, styles, and trends of these works across historical periods. Participate productively in self-directed work teams to create observable products.

#### 1. Literary Genres - Demonstrate a knowledge of and an appreciation for various forms of literature.

- a. Analyze the characteristics of genres including short story, novel, drama, narrative and lyric poetry, and essay.

- b. Analyze the characteristics of subgenres such as satire, sonnet, epic, myths and legends, mystery, and editorials.
  2. Literary Elements - Demonstrate knowledge of literary elements and techniques and show how they affect the development of a literary work.
    - a. Describe and analyze elements of fiction including plot, conflict, character, setting, theme, mood and point of view with emphasis on how they are addressed and resolved.
      - b. Explain how an author's viewpoint, or choice of a narrator affects the characterization and the tone, plot, mood and credibility of a text.
      - c. Analyze characters' traits by what the characters say about themselves in narration, dialogue, and soliloquy (when they speak out loud to themselves).
      - d. Evaluate the significance of various literary devices and techniques, including imagery, irony, tone, allegory (the use of fictional figures and actions to express truths about human experiences), and symbolism (the use of symbols to represent an idea or theme), and explain their appeal.
      - e. Evaluate the author's purpose and the development of time and sequence, including the use of complex literary devices, such as foreshadowing (providing clues to future events) or flashbacks (interrupting the sequence of events to include information about an event that happened in the past).
  3. Figurative Language and Sound Devices - Identify and use figurative language and sound devices in writing and recognize how they affect the development of a literary work.
    - a. Identify and use figurative language such as analogy, hyperbole, metaphor, personification, and simile.
    - b. Identify and use sound devices such as rhyme, alliteration, and onomatopoeia.
    - \*c. Analyze the melodies of literary language, including its use of evocative words, rhythms and rhymes.
  4. Literary Works - The student will read and respond to historically and culturally significant works of literature.
    - a. Analyze and evaluate works of literature and the historical context in which they were written.
    - b. Analyze and evaluate literature from various cultures to broaden cultural awareness.
    - c. Compare works that express the recurrence of archetypal (universal modes or patterns) characters, settings, and themes in literature and provide evidence to support the ideas expressed in each work.

**Standard 4: Research and Information: The student will conduct research and organize information.**

1. Accessing Information - Select the best source for a given purpose.

a. Access information from a variety of primary and secondary sources.

\*b. Skim text for an overall impression and scan text for particular information.

- c. Use organizational strategies as an aid to comprehend increasingly difficult content material (e.g., compare/contrast, cause/effect, problem/solution, sequential order).
2. Interpreting Information - Analyze and evaluate information from a variety of sources.
    - a. Summarize, paraphrase, and/or quote relevant information.
    - b. Determine the author's viewpoint to evaluate source credibility and reliability.
    - c. Synthesize information from multiple sources to draw conclusions that go beyond those found in any of the individual studies.
    - d. Identify complexities and inconsistencies in the information and the different perspectives found in each medium, including almanacs, microfiche, news sources, in-depth field studies, speeches, journals, technical documents, or Internet sources.

**Writing/Grammar/Usage and Mechanics. The student will express ideas effectively in written modes for a variety of purposes and audiences.**

Discuss ideas for writing with other writers. Write coherent and focused essays that show a well defined point of view and tightly reasoned argument. Use the stages of the writing process. Work independently and in self-directed writing teams to edit and revise.

**Standard 1: Writing Process - The student will use the writing process to write coherently.**

1. Use a writing process to develop and refine composition skills. Students are expected to:
  - a. use a variety of prewriting strategies such as brainstorming, outlining, free writing, discussing, clustering, webbing, using graphic organizers, notes, logs, or reading to generate ideas and gather information.
  - b. analyze audience and purpose:
    - i. consider specific purposes for writing whether to reflect, inform, explain, persuade, make a social statement, or share an experience or emotion.
    - ii. analyze the characteristics of a specific audience (interests, beliefs, background knowledge) and select an appropriate audience for the writing task.
  - c. analyze appropriate mode/genre.
  - d. develop multiple drafts, individually and collaboratively, to categorize ideas, organize them into paragraphs, and blend paragraphs into larger text.
  - e. revise for appropriateness of organization, content, and style.
  - f. edit for specific purposes such as to insure standard usage, varied sentence structure, appropriate word choice, mechanics, and spelling.



g. refine selected pieces to publish for general and specific audiences.

2. Use elaboration to develop an idea:

- a. draft a text with a clear controlling idea or thesis.
- b. develop a coherent progression of ideas applying organizational strategies such as spatial, chronological, order of importance, compare/contrast, logical order, cause/effect, or classification/division.
- c. apply different methods of support, such as facts, reasons, examples, sensory details, anecdotes, paraphrases, quotes, reflections, and dialogue.
- d. apply a consistent and appropriate point of view.
- e. understand and apply formal and informal diction.

3. Demonstrate organization, unity, and coherence by using transitions and sequencing:

- a. read the draft from the intended audience's point of view to evaluate clarity of purpose.
- b. evaluate whether ideas and organizational patterns are clear and support the overall purpose of the piece.
- c. evaluate whether the topic sentences, transitions within and between paragraphs, overall sequencing, and the progression of ideas is clear, focused, smooth, and coherent.
- d. evaluate whether ideas are adequately developed. Move, add, delete, or replace text for clarity, audience, and purpose.
- e. evaluate whether word choice/figurative language is precise, compelling, effective, and appropriate.
- f. evaluate whether sentence structures are varied in type, length, and complexity.

4. Editing/Proofreading and Evaluating: Use precise word choices, including figurative language, that convey specific meaning:

- a. apply Standard English usage, spelling and mechanics to text.
- b. correct errors in grammatical conventions.
- c. employ specified editing/proofreading strategies and consult resources (e.g., spell checks, personal spelling lists, or dictionaries) to correct errors in spelling, capitalization, and punctuation, including punctuation of quotations.
- d. use a specified format for in-text citation of source materials, for bibliographies, and for lists of works cited (check against original source for accuracy).
- e. demonstrate an understanding of the ethics of writing by creating a document free from plagiarism.

5. Use a variety of sentence structures, types, and lengths to contribute to fluency and interest.
6. Evaluate own writing and others' writing (e.g., determine the best features of a piece of writing, determine how writing achieves its purpose, ask for feedback, and respond to classmates' writing).

**Standard 2: Modes and Forms of Writing. The student will write for a variety of purposes and audiences using creative, narrative, descriptive, expository, persuasive, and reflective modes.**

At Grade 10, combine the rhetorical strategies of narration, exposition, persuasion, reflection, and description to produce text of at least 750 to 1,000 words. Compose business letters. Demonstrate a command of Standard English and the research, organization, and drafting strategies outlined in the writing process. Writing demonstrates an awareness of the audience (intended reader) and purpose for writing that are frequently published for a general or specific audience. Final drafts are formatted appropriate for the mode/genre.

1. Compose fictional, biographical or autobiographical narratives or short stories that:
  - a. establish and develop dynamic and static characters including character motivation, gestures, and feelings.
  - b. establish and develop a plot that effectively communicates the overall theme and establishes significant events.
  - c. establish and maintain a consistent point of view especially third person limited or omniscient point of view.
  - d. establish and develop a setting within a narrative that is relevant to the overall meaning of the work.
  - e. use a range of narrative devices such as dialogue, interior monologue, suspense, foreshadowing, characterization, flashback, and symbolism.
  - f. present action segments to accommodate changes in time and mood.
2. Compose expository compositions, including analytical essays and research reports that:
  - a. integrate evidence in support of a thesis (position on the topic) including information on all relevant perspectives.
  - b. communicate, quote, summarize, and paraphrase information and ideas from primary and secondary sources accurately and coherently.
  - c. integrate a variety of suitable, credible reference sources, such as print, pictorial, audio, and reliable Internet sources.

- d. integrate visual aids by using technology to organize and record information on charts, data tables, maps, and graphs.
  - e. identify and address reader's potential misunderstandings, biases, and expectations, establishing and adjusting tone accordingly.
  - f. use technical terms and notations accurately.
3. Compose persuasive/argumentative compositions that:
- a. include a well-defined thesis that makes a clear and knowledgeable appeal in a sustained and effective fashion.
  - b. use exposition, narration, description, and argumentation to support the main argument.
  - c. use specific rhetorical devices to support assertions, such as appealing to logic through reason, appealing to emotion or ethical beliefs, or relating to a personal anecdote, case study, or analogy.
  - d. clarify and defend positions with precise and relevant evidence, including facts, expert opinions, quotations, expressions of commonly accepted beliefs, and logical reasoning.
  - e. effectively address reader's concerns, counterclaims, biases, and expectations.

\*4. Create documents related to career development that:

- a. follow conventional format for email, formal letter, or memorandum.
- b. provide clear and purposeful information and address the intended audience appropriately.
- c. use appropriate vocabulary, tone, and style to take into account the nature of the relationship with, and the knowledge and interests of the intended audience.

5. Compose reflective papers that may address one of the following purposes:

- a. express the individual's insight into conditions or situations detailing the author's role in the outcome of the event as well as an outside viewpoint.
- b. connect lessons from literature, history, current events, and movies/media to personal experiences and ideas.
- c. complete a self-evaluation on a class performance.

6. Use appropriate essay test-taking and time-writing strategies that:

- a. budget time for prewriting, drafting, revising, and editing.
- b. prioritize the question/prompt.
- c. identify the common directives from the prompt (identify command verbs: *explain*, *compare*, *evaluate*, *define*, and *develop*, etc.)

- d. analyze the question/prompt and determine the appropriate mode of writing, audience, and tone.
- e. apply appropriate organizational methods to thoroughly address the prompt.

7. Compose responses to literature that:

- a. integrate detailed references and quotations from the text along with interpretive commentary to support important ideas and a consistent viewpoint.
- b. evaluate the impact of genre, historical, and cultural context on the work.
- c. evaluate the impact of literary elements/devices and complexities within the work.
- d. extend writing by changing mood, plot, characterization, or voice.

8. \*Compose documented papers incorporating the techniques of Modern Language Association (MLA) or similar parenthetical styles that:

- a. incorporates relevant integrated quotations, summary, and paraphrase with commentary.
- b. includes internal citations.
- c. contains a works cited/bibliography.

**Standard 3: Grammar/Usage and Mechanics. The student will demonstrate appropriate practices in writing by applying Standard English conventions of the revising and editing stages of writing. Work independently and in self-directed writing teams to revise and edit.**

1. **Standard English Usage.** The student will demonstrate correct use of Standard English in speaking and writing.

- a. Distinguish commonly confused words (e.g., there, their, they're; two, too, to; accept, except; affect, effect).
- b. Use nominative, objective, possessive nouns.
- c. Use abstract, concrete, and collective nouns.
- d. Use correct verb forms and tenses.
- e. Use correct subject-verb agreement especially when the sentence contains intervening phrases or clauses.
- f. Distinguish transitive, intransitive, and linking verbs.
- g. Distinguish active and passive voice.
- h. Use correct pronoun/antecedent agreement and clear pronoun reference.
- i. Use correct forms of positive, comparative, and superlative adjectives.

- j. Use correct form of conjunction (coordinating, correlating, or subordinating).
  - k. Use appositives and verbals in compositions.
2. Mechanics and spelling - The student will demonstrate appropriate language mechanics in writing.
- a. Apply capitalization rules appropriately in writing.
  - b. Punctuate in writing including:
    - i. commas
    - ii. quotation marks
    - iii. apostrophes, colons, and semicolons
    - iv. ellipsis
    - v. hyphens, dashes, parentheses, and brackets
  - c. Demonstrate correct use of punctuation in research writing including:
    - i. formal outline
    - ii. parenthetical documentation
    - iii. works cited/bibliography
  - d. Use correct formation of plurals.
  - e. Use correct spelling including:
    - i. commonly misspelled words and homonyms
    - ii. spell consonant changes correctly (example recede/recession; transmit/transmission)
    - iii. spell Greek and Latin derivatives (words that come from a base or common root word) by applying correct spelling of bases and affixes (prefixes and suffixes)
3. Sentence structure. The student will demonstrate appropriate sentence structure in writing.
- a. Identify and use parallel structure.
  - b. Correct dangling and misplaced modifiers.
  - c. Correct run-on sentences.
  - d. Correct fragments.
  - e. Correct comma splices.
  - f. Use independent/dependent and restrictive (essential)/nonrestrictive (nonessential) clauses to designate the importance of information.

g. Use a variety of sentence structures and lengths to create a specific effect.

**Oral Language/Listening and Speaking: The student will demonstrate thinking skills in listening and speaking.**

Formulate thoughtful judgments about oral communication. Deliver focused and coherent presentations that convey clear and distinct perspectives and solid reasoning. Deliver polished formal and extemporaneous presentations that combine the traditional speech strategies of narration, exposition, persuasion, and description. Use gestures, tone, and vocabulary appropriate to the audience and purpose. Use the same Standard English conventions for oral speech that are used in writing.

**\*Standard 1: Listening - The student will listen for information and for pleasure.**

1. Engage in critical, empathetic, appreciative, and reflective listening to interpret, respond, and evaluate speaker's messages.
2. Listen and respond appropriately to presentations and performances of peers or published works such as original essays or narratives, interpretations of poetry, and individual or group performances.
3. Evaluate informative and persuasive presentations of peers, public figures, and media presentations.
4. Use feedback to evaluate own effectiveness and set goals for future presentations.

**\*Standard 2: Speaking - The student will express ideas and opinions in group or individual situations.**

1. Use formal, informal, standard, and technical language effectively to meet the needs of purpose, audience, occasion, and task.
2. Prepare, organize, and present a variety of informative and persuasive messages effectively.
3. Use a variety of verbal and nonverbal techniques in presenting oral messages and demonstrate poise and control while presenting.

**Visual Literacy: The student will interpret, evaluate, and compose visual messages.**

**\*Standard 1: Interpret Meaning - The student will interpret and evaluate the various ways visual image-makers such as graphic artists, illustrators, and news photographers represent meaning.**

1. Identify the use of stereotypes and biases in visual media (e.g., distorted representations of society; imagery and stereotyping in advertising; elements of stereotypes such as physical characteristics, manner of speech, beliefs, attitudes).
2. Investigate how symbols, images, sound, and other conventions are used in visual media

(e.g., time lapse in films; set elements that identify a particular time period or culture).

**\*Standard 2: Evaluate Media - The student will evaluate visual and electronic media, such as film, as compared with print messages.**

1. Recall that people with special interests and expectations are the target audience for particular messages or products in visual media.
2. Select and design language and content that reflect this appeal (e.g., in advertising and sales techniques aimed specifically towards teenagers; in products aimed toward different classes, races, ages, genders; in the appeal of popular television shows and films for particular audience).

**\*Standard 3: Compose Visual Messages - The student will create a visual message that effectively communicates an idea.**

1. Investigate and present the sources of a media presentation or production such as who made it and why it was made.
2. Analyze a media presentation to get the main idea of the message's content and compose one using a similar format.

**Blueprints for each Criterion-Referenced Test reflect the degree of representation given on the test to each *PASS* standard and objective. To access the current blueprint (when available) go to the State Department of Education Web site at <<http://sde.state.ok.us>>, click on site index, then click “s” to go to student assessment, then click on “Student Tests & Materials” then scroll down to “alignment blueprints.”**

## Language Arts

### Grade 11

**Reading/Literature:** The student will apply a wide range of strategies to comprehend, interpret, evaluate, appreciate, and respond to a wide variety of texts.

**Standard 1: Vocabulary - The student will expand vocabulary through word study, literature, and class discussion.**

Apply a knowledge of word origins (words from other languages, history, or literature) to determine the meaning of new words encountered in reading and use of those words accurately.

1. Apply knowledge of Greek, Latin, and Anglo-Saxon roots and word parts to draw inferences about the meaning of scientific and mathematical terminology.
2. Use reference material such as glossary, dictionary, thesaurus, and available technology to determine precise meaning and usage.
3. Analyze the meaning of analogies encountered, analyzing specific comparisons as well as relationships and inferences.
4. Rely on context to determine meanings of words and phrases such as figurative language, connotations and denotations of words, analogies, idioms, and technical vocabulary.
5. Use word meanings within the appropriate context and verify these meanings by definition, restatement, example, and analogy.

**Standard 2: Comprehension - The student will interact with the words and concepts on the page to understand what the writer has said.**

Read and understand grade-level-appropriate material. Analyze the organizational patterns and evaluate authors' argument and positions. At Grade 11, in addition to regular classroom reading, read a wide variety of classic and contemporary literature, poetry, magazines, newspapers, reference materials, and online information as well as expository (informational and technical) texts.

1. Literal Understanding
  - a. Identify the structures and format of various informational documents and explain how authors use the features to achieve their purpose.
  - b. Select and explain specific devices an author uses to accomplish purpose (persuasive techniques, style, literary forms or genre, portrayal of themes, language).
  - c. Use study strategies such as note taking, outlining, and using study guide questions to better understand texts.
  - d. Construct images such as graphic organizers based on text descriptions and text structures.



## 2. Inferences and Interpretation

- a. Interpret the possible inferences of the historical context on literary works.
- b. Describe the development of plot and identify conflict and how they are addressed and resolved.
- c. Investigate influences on a reader's response to a text (e.g., personal experience and values; perspective shaped by age, gender, class, or nationality).
- d. Make reasonable assertions about author's arguments by using elements of the text to defend and clarify interpretations.

## 3. Summary and Generalization

- a. Determine the main idea, locate and interpret minor subtly stated details in complex passages.
- b. Use text features and elements to support inferences and generalizations about information.
- c. Summarize and paraphrase complex, implicit hierarchic structures in informational texts, including relationships among concepts and details in those structures.

## 4. Analysis and Evaluation

- a. Compare and contrast aspects of texts such as themes, conflicts, and allusions both within and across texts.
- b. Analyze the structure and format of informational and literary documents and explain how authors use the features to achieve their purposes.
- c. Examine the way in which clarity of meaning is affected by the patterns of organization, repetition of the main ideas, organization of language, and word choice in the text.
- d. Analyze the way in which authors have used archetypes (universal modes or patterns) drawn from myth and tradition in literature, film, political speeches, and religious writings.

### **Standard 3: Literature - The student will read, construct meaning, and respond to a wide variety of literary forms.**

Read and respond to grade-level-appropriate historically or culturally significant works of British, American, or world literature. Conduct in-depth analysis of themes, styles, and trends of these works across historical periods. Participate productively in self-directed work teams to create observable products.

1. Literary Genres - Demonstrate a knowledge of and an appreciation for various forms of literature.
  - a. Analyze the characteristics of genres including short story, novel, drama, poetry, and essay.
  - b. Analyze the characteristics of subgenres including allegory and ballad.
2. Literary Elements - Demonstrate knowledge of literary elements and techniques and show how they affect the development of a literary work.
  - a. Analyze the way in which the theme or meaning of a selection represents a view or comment on life, using textual evidence to support the claim.
  - b. Analyze the way in which irony, tone, mood, the author's style, and the "sound" of language achieve specific rhetorical (communication) or aesthetic (artistic) purposes or both.
  - c. Analyze characters' traits by what the characters say about themselves in narration, dialogue, and soliloquy (when they speak out loud to themselves).
  - d. Evaluate the significance of various literary devices and techniques, including imagery, irony, tone, allegory (the use of fictional figures and actions to express truths about human experiences), and symbolism (the use of symbols to represent an idea or theme), and explain their appeal.
  - e. Evaluate the author's purpose and the development of time and sequence, including the use of complex literary devices, such as foreshadowing (providing clues to future events) or flashbacks (interrupting the sequence of events to include information about an event that happened in the past).
3. Figurative Language and Sound Devices - Identify figurative language and sound devices and analyze how they affect the development of a literary work.
  - a. Identify and explain figurative language including analogy, hyperbole, metaphor, personification, and simile.
  - b. Identify and explain sound devices including alliteration and rhyme.
  - c. Analyze the melodies of literary language, including its use of evocative words, rhythms and rhymes.
4. Literary Works - Read and respond to historically and culturally significant works of literature.
  - a. Analyze and evaluate works of literature and the historical context in which they were written.
  - b. Analyze and evaluate literature from various cultures to broaden cultural awareness.

- c. Compare works that express the recurrence of archetypal (universal) characters, settings, and themes in literature and provide evidence to support the ideas expressed in each work.
- d. Analyze the clarity and consistency of political assumptions in a selection of literary works or essays on a topic.

**Standard 4: Research and Information - The student will conduct research and organize information.**

- 1. Accessing Information - Select the best source for a given purpose.
  - a. Access information from a variety of primary and secondary sources.
  - b. Skim text for an overall impression and scan text for particular information.
  - c. Use organizational strategies as an aid to comprehend increasingly difficult content material (e.g., compare/contrast, cause/effect, problem/solution, sequential order).
- 2. Interpreting Information - Analyze and evaluate information from a variety of sources.
  - a. Summarize, paraphrase, and/or quote relevant information.
  - b. Determine the author's viewpoint to evaluate source credibility and reliability.
  - c. Synthesize information from multiple sources to draw conclusions that go beyond those found in any of the individual studies.
  - d. Identify complexities and inconsistencies in the information and the different perspectives found in each medium, including almanacs, microfiche, news sources, in-depth field studies, speeches, journals, technical documents, or Internet sources.
  - e. Develop presentations by using clear research questions and creative and critical research strategies, such as field studies, oral histories, interviews, experiments, and Internet sources.

**Writing/grammar/mechanics and usage. The student will express ideas effectively in written modes for a variety of purposes and audiences.**

Write coherent and focused texts that show a well defined point of view and tightly reasoned argument. The writing demonstrates progression through the stages of the writing process. Work independently and in self-directed writing teams to edit and revise.

**Standard 1: Writing Process. The student will use the writing process to write coherently.**

- 1. Students are expected to:

- a. use a variety of prewriting strategies such as brainstorming, free writing, outlining, discussing, clustering, webbing, using graphic organizers, notes logs, or reading to generate ideas, develop voice, gather information, and plan.
- b. develop main idea/thesis. Evaluate results of prewriting activities and select appropriate topic.
- c. evaluate audience and purpose:
  - i. consider specific purposes for writing (e.g., to reflect, inform, explain, persuade, make social and/or political statements, or share an experience or emotion).
  - ii. evaluate possible modes/genres and select one, remembering that the choice of the mode/genre will guide the treatment of the topic, the development of a stance toward the audience, and the organizational structure.
- d. develop multiple drafts, individually and collaboratively, to categorize ideas, organize them into paragraphs, and blend paragraphs into larger text.
- e. revise drafts for organization, content and style.
- f. edit for specific purposes such as to ensure standard usage, varied sentence structure, appropriate word choice, mechanics, and spelling.
- g. refine selected pieces to publish for general and specific audiences.

2. Use elaboration to develop an idea:

- a. draft a text with a clear, controlling idea or thesis.
- b. develop a coherent progression of ideas applying organizational strategies such as spatial, chronological, order of importance, compare/contrast, logical order, cause/effect, or classification/division.
- c. apply different methods of support, such as facts, reasons, examples, sensory details, anecdotes, paraphrases, quotes, reflections, and dialogue.
- d. apply a consistent and appropriate point of view, establish a credible voice, and create a suitable tone.
- e. understand and apply formal and informal diction for a desired effect.

3. Demonstrate organization, unity, and coherence during revision process:

- a. read the draft from the intended audience's point of view to evaluate clarity of purpose.
- b. evaluate whether ideas and organizational patterns are clear and support the overall purpose of the piece.
- c. evaluate whether topic sentences, transitions within and between paragraphs, overall sequencing, and the progression of ideas is clear, focused, smooth, and coherent.
- d. evaluate whether ideas are adequately developed.

- e. apply a consistent and appropriate point of view.
- f. understand and apply formal and informal diction.

4. Editing/proofreading and evaluating:

- a. apply Standard English usage and correct spelling in text.
- b. employs specified editing/proofreading strategies and consults resources (e.g., handbooks and style manuals, spell checks, personal spelling lists, dictionaries, thesauruses, or style sheets) to correct errors in spelling, capitalization, and punctuation, including punctuation of quotations.
- c. use a specified format for in-text citation of source materials for bibliographies and for lists of works cited, and check against original source for accuracy.
- d. demonstrate an understanding of the ethics of writing by creating a document free from plagiarism.

5. Use point of view, characterization, style, and related elements for specific rhetorical (communication) and aesthetic (artistic) purposes.

6. Structure ideas and arguments in a sustained and persuasive way and support them with precise and relevant examples.

7. Evaluate own writing and others' writing to highlight the individual voice, improve sentence variety and style, and enhance subtlety of meaning and tone in ways that are consistent with the purpose, audience, and form of writing.

**Standard 2: Modes and Forms of writing. The student will write for a variety of purposes and audiences using creative, narrative, descriptive, expository, persuasive, and reflective modes.**

At Grade 11, continue to combine the rhetorical strategies of narration, exposition, persuasion, reflection, and description to produce text of at least 1,500 words. Refine reflective compositions and become familiar with forms of job applications and resumes. Deliver multimedia presentations on varied topics. Demonstrate a command of Standard English and the research, organization, and drafting strategies outlined in the writing process. Writing demonstrates an awareness of the audience [intended reader] and purpose for writing.

1. Compose fictional, biographical or autobiographical narratives that:

- a. create and develop dynamic and static characters who experience internal and external conflicts, including character motivation, gestures, and feelings.
- b. create and develop a plot that effectively communicates the author's purpose.
- c. create and self-select first or third person point of view appropriate for the author's purpose.
- d. create and develop a setting within a narrative that is relevant to the overall meaning of the work.

- e. use a range of narrative devices such as dialogue, interior monologue, suspense, foreshadowing, characterization, flashback, symbolism, and allusion.
  - f. present action segments to accommodate changes in time and mood.
2. Compose expository compositions, including analytical essays, historical investigations, and research reports that:
- a. integrate evidence in support of a thesis including information on all relevant perspectives.
  - b. quote, summarize, and paraphrase information and ideas from primary and secondary sources, including technical terms and notations, accurately and coherently.
  - c. integrate a variety of suitable, credible modern/historical reference sources such as print, pictorial, audio, archives (records), interviews, and reliable Internet sources to locate information in support of topic.
  - d. use technology to integrate and create visual aids such as charts, data tables, maps, and graphs.
  - e. identify and address reader's potential misunderstandings, biases, and expectations, establishing and adjusting tone accordingly through a focus on appropriate diction.
3. Compose persuasive compositions that:
- a. include a well-defined thesis that makes a clear and knowledgeable appeal in a sustained and effective fashion.
  - b. use exposition, narration, description, and argumentation to support the main argument.
  - c. use specific rhetorical devices to support assertions such as personal anecdote, case study, analogy, or logical, emotional, and/or ethical appeal.
  - d. clarify and defend positions with precise and relevant evidence, including facts, expert opinions, quotations, expressions of commonly accepted beliefs, and logical reasoning.
  - e. effectively address reader's concerns, counterclaims, and individual or group biases.
4. Compose reflective compositions that:
- a. express the individual's insight into conditions or situations, detailing the author's role in the outcome and demonstrating an understanding of external influences.
  - b. connect lessons from literature, history, current events, and movies/media to personal experiences and ideas.
5. Create documents related to career development that:
- a. follow conventional format for formal letter, email, and memorandum.
  - b. provide clear, purposeful information and address the intended audience appropriately.

- c. indicate varied levels, patterns, and types of language to achieve intended effects and aid comprehension.
- d. modify the tone to fit the purpose and audience.
- e. follow the conventional style for that type of document (resume, cover letter of application) and use page format, fonts (typeface), and spacing that contribute to the readability and impact of the document.
- f. use accurate information to create an effective resume.

6. Compose responses to literature that:

- a. evaluate the significant ideas of literary works or passages including plot development and characterization.
- b. integrate textual references, integrated quotations, and interpretive commentary to create an accurate and consistent composition.
- c. evaluate the impact of genre, cultural, and historical context on the work.
- d. evaluate the impact of literary elements/devices, ambiguities, and complexities within the work.

7. Write for different purposes and to a specific audience or person, adjusting tone and style as necessary to make writing interesting. Continue to produce other writing forms introduced in earlier grades.

8. Compose documented papers that:

- a. integrate relevant quotations, summary, and paraphrase with commentary.
- b. includes internal citations using various formats of research writing.
- c. contains a works cited/bibliography consistent with the selected research-writing format.

\* 9. Use appropriate essay test-taking and time-writing strategies that:

- a. budget time for prewriting, drafting, revising, and editing.
- b. prioritize question/prompt.
- c. identify common directives from the prompt (identify common verbs: *explain, compare, evaluate, define, and develop*, etc.).
- d. analyze the question/prompt and determine the appropriate mode of writing, audience, and tone.
- e. apply appropriate organizational methods to thoroughly address the prompt.
- f. evaluate work using editing checklist or rubric if available.

**Standard 3: Grammar/Usage and Mechanics. The student will demonstrate appropriate**

**practices in writing by applying Standard English conventions to the revising and editing stages of writing.**

1. Standard English Usage-Demonstrate correct use of Standard English in speaking and writing. Work independently and in self-directed work teams to edit and revise.
  - a. Distinguish commonly confused words (e.g., there, their, they're; two, too, to; accept, except; affect, effect).
  - b. Identify and use correct verb forms and tenses.
  - c. Identify and use correct subject-verb agreement.
  - d. Identify and use active and passive voice.
  - e. Identify and use concrete, abstract, and collective nouns.
  - f. Identify and use nominative, objective, and possessive nouns.
  - g. Identify and use correct pronoun/antecedent agreement and clear pronoun reference.
  - h. Identify and use correct forms of positive, comparative, and superlative adjectives.
  - i. Identify and use coordinating, correlating, and subordinating conjunctions.
  - j. Identify and use appositives and verbals.
2. Mechanics and Spelling - Demonstrate appropriate language mechanics in writing.
  - a. Apply capitalization rules appropriately in writing.
  - b. Punctuate in writing including:
    - i. commas
    - ii. quotation marks
    - iii. apostrophes, colons, and semicolons
    - iv. ellipsis
    - v. hyphens, dashes, parentheses, and brackets
  - c. Demonstrate correct use of punctuation in research writing including:
    - i. formal outline
    - ii. parenthetical documentation
    - iii. works cited/bibliography
  - d. Use correct formation of plurals.



- e. Use correct spelling including:
  - i. commonly misspelled words and homonyms
  - ii. spell consonant changes correctly (example: recede/recession; transmit/transmission)
  - iii. spell Greek and Latin derivatives (words that come from a base or common root word) by applying correct spelling of bases and affixes (prefixes and suffixes)

3. Sentence structure - Demonstrate appropriate sentence structure in writing.

- a. Maintain parallel structure.
- b. Correct dangling and misplaced modifiers.
- c. Correct run-on sentences.
- d. Correct fragments.
- e. Correct comma splices
- f. Use dependent/independent and restrictive (essential)/nonrestrictive (nonessential) clauses to designate the importance of information
- g. Effectively use a variety of sentence structures and lengths to create a specific effect

4. Apply appropriate manuscript conventions in writing including title page presentation, pagination, spacing and margins, and integration of sources and support material, by citing sources within the text, using direct quotations, and paraphrasing.

**Oral Language/Listening and Speaking - The student will demonstrate thinking skills in listening and speaking.**

Formulate thoughtful judgments about oral communication. Deliver focused and coherent presentations that convey clear and distinct perspectives and solid reasoning. Deliver polished formal and extemporaneous presentations that combine the traditional speech strategies of narration, exposition, persuasion, and description. Use gestures, tone, and vocabulary appropriate to the audience and purpose. Use the same Standard English conventions for oral speech that are used in writing. Participate independently and in groups to create oral presentations.

**Standard 1: Listening - The student will listen for information and for pleasure.**

- 1. Demonstrate proficiency in critical, empathetic, appreciative, and reflective listening to interpret, respond and evaluate speaker's messages.
- 2. Use effective strategies for listening that prepare for listening, identify the types of listening, and adopt appropriate strategies.
- 3. Listen and respond appropriately to presentations and performances of peers or published

works such as original essays or narratives, interpretations of poetry, and individual or group performances.

4. Use effective strategies to evaluate own listening such as asking questions for clarification, comparing and contrasting interpretations with others, and researching points of interest or contention.
5. Use effective listening to provide appropriate feedback in a variety of situations such as conversations and discussions and informative, persuasive, or artistic presentations.

**Standard 2: Speaking - The student will express ideas and opinions in group or individual situations.**

1. Use a variety of verbal and nonverbal techniques in presenting oral messages such as pitch and tone of voice, posture, and eye contact, and demonstrate poise and control while presenting.
2. Use logical, ethical, and emotional appeals that enhance a specific tone and purpose.
3. Evaluate when to use different kinds of effects (including visuals, music, sound, and graphics) to create effective presentations.
4. Ask clear questions for a variety of purposes and respond appropriately to the questions of others.

**Visual Literacy: The student will interpret, evaluate, and compose visual messages.**

**Standard 1: Interpret Meaning - The student will interpret and evaluate the various ways visual image-makers including graphic artists, illustrators, and news photographers represent meaning.**

1. Use a range of strategies to interpret visual media (e.g., draw conclusions, make generalizations, synthesize material viewed, refer to images or information in visual media to support point of view).
2. Describe how editing shapes meaning in visual media (e.g., omission of alternative perspectives; filtered or implied viewpoints; emphasis of specific ideas, images, or information in order to serve particular interests).

**Standard 2: Evaluate Media - The student will evaluate visual and electronic media, such as film, as compared with print messages.**

1. Use a variety of criteria (e.g., clarity, accuracy, effectiveness, bias, relevance of facts) to evaluate informational media (e.g., Web sites, documentaries, news programs).
2. Identify the rules and expectations about genre that can be manipulated for particular effects or purposes (e.g., combining or altering conventions of different genres, such as presenting news as entertainment; blurring of genres, such as drama-documentaries).

**Standard 3: Compose Visual Messages - The student will create a visual message that effectively communicates an idea.**

1. Design and develop genres such as nightly news, news magazines, and documentaries and identify the unique properties of each.
2. Compare, contrast, and critique various media coverage of the same events such as in newspapers, television, and on the Internet, and compose a study of the results.

## LANGUAGE ARTS

### Grade 12

**Reading/Literature:** The student will apply a wide range of strategies to comprehend, interpret, evaluate, appreciate, and respond to a wide variety of texts.

**Standard 1: Vocabulary - The student will expand vocabulary through word study, literature, and class discussion.**

Apply a knowledge of word origins (words from other languages, history, or literature) to determine the meaning of new words encountered in reading and use those words accurately.

1. Apply knowledge of Greek, Latin, and Anglo-Saxon roots and word parts to draw inferences about new words that have been created in the fields of science and mathematics (gene splicing, genetic engineering).
2. Research unfamiliar words based on characters, themes, or historical events.
3. Analyze the meaning of analogies encountered, analyzing specific comparisons as well as relationships and inferences.
4. Rely on context to determine meanings of words and phrases such as figurative language, connotations and denotations of words, analogies, idioms, and technical vocabulary.

**Standard 2: Comprehension - The student will interact with the words and concepts on the page to understand what the writer has said.**

Read and understand grade-level-appropriate material. Analyze the organizational patterns and evaluate authors' argument and positions. At Grade 12, in addition to regular classroom reading, read a wide variety of classic and contemporary literature, poetry, magazines, newspapers, reference materials, and online information, as well as expository (informational and technical) texts.

#### 1. Literal Understanding

- a. Identify the structures and format of various informational documents and explain how authors use the features to achieve their purpose.
- b. Explain specific devices an author uses to accomplish purpose (persuasive techniques, style, literary forms or genre, portrayal of themes, language).
- c. Use study strategies such as note taking, outlining, and using study-guide questions to better understand texts.
- d. Construct images such as graphic organizers based on text descriptions and text structures.

e. Read silently with comprehension for a sustained period of time.

## 2. Inferences and Interpretation

a. Interpret the possible inferences of the historical context on literary works.

b. Describe the development of plot and identify conflicts and how they are addressed and resolved.

c. Identify influences on a reader's response to a text (e.g., personal experience and values; perspectives shaped by age, gender, class, or nationality).

d. Make reasonable assertions about authors' arguments by using elements of the text to defend and clarify interpretations.

## 3. Summary and Generalization

a. Determine the main idea and supporting details by producing summaries of text.

b. Use text features and elements to support inferences and generalizations about information.

c. Summarize and paraphrase complex, implicit, hierarchic structures in informational texts, including relationships among concepts and details in those structures.

d. Compare and contrast elements of text such as themes, conflicts, and allusions both within and across text.

## 4. Analysis and Evaluation

a. Investigate both the features and the rhetorical (communication) devices of different types of public documents, such as policy statements, speeches, or debates, and the ways in which authors use those features and devices.

b. Examine the structure and format of informational and literary documents and explain how authors use the features to achieve their purposes.

c. Analyze the way in which clarity of meaning is affected by the patterns of organization, repetition of the main ideas, organization of language, and word choice in the text.

d. Analyze the way in which authors have used archetypes (universal modes or patterns) drawn from myth and tradition in literature, film, political speeches, and religious writings.

e. Evaluate the credibility of information sources, including how the writer's motivation may affect that credibility.

**Standard 3: Literature - The student will read, construct meaning, and respond to a wide**

**variety of literary forms.**

Read and respond to grade-level-appropriate historically or culturally significant works of British, American, or world literature. Conduct in-depth analysis of themes, styles, and trends of these works across historical periods. Participate productively in self-directed work teams to create observable products.

1. Literary Genres - Demonstrate a knowledge of and an appreciation for various forms of literature.
  - a. Analyze the characteristics of genres including short story, novel, drama, poetry, and essay.
  - b. Analyze the characteristics of subgenres including allegory, ballad, elegy, ode, parody, pastoral, satire and tragedy.
2. Literary Elements - Demonstrate knowledge of literary elements and techniques and show how they affect the development of a literary work.
  - a. Evaluate the way in which the theme or meaning of a selection represents a view or comment on life, using textual evidence to support the claim.
  - b. Analyze the way in which irony, tone, mood, the author's style, and the "sound" of language achieve specific rhetorical (communication) or aesthetic (artistic) purposes or both.
  - c. Analyze characters' traits by what the characters say about themselves in narration, dialogue, and soliloquy (when they speak out loud to themselves).
  - d. Evaluate the significance of various literary devices and techniques, including imagery, allegory (the use of fictional figures and actions to express truths about human experiences), and symbolism (the use of symbols to represent an idea or theme), and explain their appeal.
  - e. Evaluate the author's purpose and the development of time and sequence, including the use of complex literary devices, such as foreshadowing (providing clues to future events) or flashbacks (interrupting the sequence of events to include information about an event that happened in the past).
3. Figurative Language and Sound Devices - Identify figurative language and sound devices and analyze how they affect the development of a literary work.
  - a. Identify and explain figurative language including analogy, hyperbole, metaphor, personification, and simile.
  - b. Identify and explain sound devices including alliteration and rhyme.
  - c. Analyze the melodies of literary language, including its use of evocative words, rhythms and rhymes.

4. Literary Works - Read and respond to historically and culturally significant works of literature.
  - a. Analyze and evaluate works of literature and the historical context in which they were written.
  - b. Analyze and evaluate literature from various cultures to broaden cultural awareness.
  - c. Compare works that express the recurrence of archetypal (universal modes or patterns) characters, settings, and themes in literature and provide evidence to support the ideas expressed in each work.
  - d. Analyze the clarity and consistency of political assumptions in a selection of literary works or essays on a topic.

**Standard 4: Research and Information - The student will conduct research and organize information.**

1. Accessing Information - Select the best source for a given purpose.
  - a. Access information from a variety of primary and secondary sources.
  - b. Skim text for an overall impression and scan text for particular information.
  - c. Use organizational strategies as an aid to comprehend increasingly difficult content material (e.g., compare/contrast, cause/effect, problem/solution, sequential order).
2. Interpreting Information - Analyze and evaluate information from a variety of sources.
  - a. Summarize, paraphrase, and or quote relevant information.
  - b. Determine the author's viewpoint to evaluate source credibility and reliability.
  - c. Synthesize information from multiple sources to draw conclusions that go beyond those found in any of the individual studies.
  - d. Identify complexities and inconsistencies in the information and the different perspectives found in each medium, including almanacs, microfiche, news sources, in-depth field studies, speeches, journals, technical documents, or Internet sources.
  - e. Develop presentations by using clear research questions and creative and critical research strategies, such as field studies, oral histories, interviews, experiments, and Internet sources.
  - f. Compile written ideas and information into reports, summaries, or other formats and draw conclusions.

**Writing/grammar/ mechanics and usage. The student will express ideas effectively in written modes for a variety of purposes and audiences.**

**Standard 1: Writing Process - The student will use the writing process to write coherently.**

1. Use a writing process to develop and refine composition skills. Students are expected to:

- a. use a variety of prewriting strategies such as brainstorming, outlining, free writing, discussing, clustering, webbing, using graphic organizers, notes logs, interviews, or reading to generate ideas, develop voice, gather information, and plan.
- b. develop main idea/thesis.
- c. evaluate results of prewriting activities and select appropriate topic.
- d. evaluate audience and purpose for writing:
  - i. consider specific purposes for writing (e.g., to reflect, inform, explain, persuade, make a social and/or political statement, or share an experience or emotion).
  - ii. evaluate the writing task, considering the assumptions, values, and background knowledge of the intended audience.
- e. evaluate possible modes/genres and select one, remembering that the choice of the mode/genre will guide the treatment of the topic, the development of a stance toward the audience, and the organizational structure.
- f. develop multiple drafts, individually and collaboratively, to categorize ideas organize them into paragraphs, and blend paragraphs into larger text.
- g. revise drafts for organization, content, and style.
- h. edit/proofread for specific purposes such as to ensure standard usage, varied sentence structure, appropriate word choice, mechanics, and spelling.
- i. refine selected pieces to publish for general and specific audiences.

2. Use elaboration to develop an idea:

- a. draft a text with a clear, controlling idea or thesis
- b. develop a coherent progression of ideas applying organizational strategies such as spatial, chronological, order of importance, compare/contrast, logical order, cause/effect, or classification/division.
- c. apply different methods of support, such as facts, reasons, examples, sensory details, anecdotes, paraphrases, quotes, reflections, and dialogue.
- d. apply a consistent and appropriate point of view, establish a credible voice, and create a suitable tone.
- e. understand and apply formal and informal diction for a desired effect.

3. Demonstrate organization, unity and coherence during revision process:



- a. read the draft from the intended audience's point of view to evaluate clarity of purpose.
- b. evaluate whether ideas and organizational patterns are clear and support the overall purpose of the piece.
- c. evaluate whether topic sentences, transitions within and between paragraphs, overall sequencing, and the progression of ideas is clear, focused, smooth, and coherent.
- d. evaluate whether ideas are adequately developed.
- e. apply a consistent and appropriate point of view.
- f. understand and apply formal and informal diction.

4. Editing/proofreading and evaluating:

- a. apply Standard English usage and correct spelling in text.
- b. employs specified editing/proofreading strategies and consults resources (e.g., handbooks and style manuals, spell checks, personal spelling lists, dictionaries, thesauruses, or style sheets) to correct errors in spelling, capitalization, and punctuation, including punctuation of quotations.
- c. use a specified format for in-text citation of source materials for bibliographies and for lists of works cited, and check against original source for accuracy.
- d. demonstrate an understanding of the ethics of writing by creating a document free from plagiarism.

5. Use point of view, characterization, style, and related elements for specific rhetorical (communication) and aesthetic (artistic) purposes.

6. Structure ideas and arguments in a sustained and persuasive way and support them with precise and relevant examples.

7. Evaluate own and others' writing to highlight the individual voice, improve sentence variety and style, and enhance subtlety of meaning and tone in ways that are consistent with the purpose, audience, and form of writing.

8. Further develop unique writing style and voice, improve sentence variety, and enhance subtlety of meaning and tone in ways that are consistent with the purpose, audience, and form of writing.

**Standard 2: Modes and Forms of Writing. The student will write for a variety of purposes and audiences using creative, narrative, descriptive, expository, persuasive, and reflective modes.**

At Grade 12, continue to combine the rhetorical strategies of narration, exposition, persuasion, and description: to produce text, reflective compositions, historical investigation reports, and deliver multimedia presentations. The writing demonstrates a command of Standard English and the research, organization, and drafting strategies outlined in the writing process. Writing demonstrates an awareness of the audience (intended reader) and purpose for writing.

1. Write fictional, biographical or autobiographical narratives that:

- a. create and develop a character who experience internal and external conflicts, including character motivation, gestures, and feelings.
  - b. create and develop a plot that effectively communicates a pattern.
  - c. create and manipulate point of view to reveal author's purpose.
  - d. create and develop a setting to reinforce the mood.
  - e. use a range of narrative devices such as dialogue, interior monologue, suspense, foreshadowing, characterization, flashback, symbolism, allusion and frame story.
  - f. narrate a sequence of events.
2. Compose expository compositions, including analytical essays, historical investigations, and research reports that:
- a. integrate evidence in support of a thesis including information on all relevant perspectives.
  - b. quote, summarize, and paraphrase information and ideas from primary and secondary sources, including technical terms and notations, accurately and coherently.
  - c. integrate a variety of suitable, credible modern/historical reference sources such as print, pictorial, audio, archives (records), interviews, and reliable Internet sources to locate information that contains different perspectives.
  - d. use technology to integrate and create visual aids such as charts, data tables, maps, and graphs.
  - e. identify and address reader's potential misunderstandings, biases, and expectations, establishing and adjusting tone accordingly through a focus on appropriate professional, academic, or technical diction.
  - f. use technical terms and notations accurately.
3. Compose persuasive compositions that:
- a. include a well-defined thesis that makes a clear and knowledgeable appeal in a sustained and effective fashion.
  - b. use exposition, narration, description, and argumentation to support the main argument.
  - c. use specific rhetorical devices to support assertions such as personal anecdote, case study, analogy, or logical, emotional, and/or ethical appeal.
  - d. clarify and defend positions with precise and relevant evidence, including facts, expert opinions, quotations, expressions of commonly accepted beliefs, and logical reasoning.
  - e. effectively address reader's concerns, counterclaims, and individual or group biases.

4. Write reflective compositions that:

- a. express the individual's insight into conditions or situations, detailing the author's role in the outcome and demonstrating an understanding of external influences to justify or clarify his/her perspective.
- b. connect lessons from literature, history, current events, and movies/media to personal experiences and ideas.

5. Create documents related to career development that:

- a. appropriately present purposeful and precise information to meet the need of the intended audience.
- b. write an email, formal letter, or memorandum, using conventional format.
- c. follow the conventional style for a specific document (resume, cover letter of application), and use page format, fonts (typeface), and spacing that contribute to the readability and impact of the document.
- d. use accurate information to create various resume formats.
- e. modify the tone to fit the purpose and audience.
- f. use accurate information to create an effective resume.

6. Compose responses to literature that:

- a. evaluate the significant ideas of literary works or passages including plot development and characterization.
- b. evaluate the impact of genre, cultural, and historical context on the work.
- c. evaluate the impact of literary elements/devices, ambiguities, and complexities within the work.
- d. support important ideas and viewpoints with accurate and detailed reference to the text or to other works.

7. Write for different purposes and to a specific audience or person, adjusting tone and style as necessary to make writing interesting. Continue to produce other forms of writing introduced in earlier grades.

8. Write documented papers that:

- a. incorporate relevant integrated quotations, summary, and paraphrase with commentary.
- b. include internal citations using various formats of research writing.
- c. contain a works cited/bibliography consistent with the selected research-writing format.

9. Use appropriate essay test-taking and time writing strategies that:

- a. budget time for prewriting, drafting, revising, and editing.

- b. prioritize the question/prompt.
- c. identify common directives from the question/prompt (identify common verbs: *explain, compare, evaluate, define, and develop*, etc.).
- d. analyze the question/prompt and determine the appropriate mode of writing, audience, and tone.
- e. apply appropriate organizational methods to thoroughly address the question/prompt.
- f. evaluate work using editing checklist or rubric, if available.

**Standard 3: Grammar/Usage and Mechanics. The student will demonstrate appropriate practices in writing by applying Standard English conventions to the revising and editing stages of writing.**

1. Standard English Usage - Demonstrate correct use of Standard English in speaking and writing.

- a. Distinguish commonly confused words (e.g., there, their, they're; two, too, to; accept, except; affect, effect).
- b. Identify and use correct verb forms and tenses.
- c. Identify and use correct subject-verb agreement.
- d. Distinguish active and passive voice.
- e. Identify and use pronouns effectively, correct pronoun/antecedent agreement, and clear pronoun reference.
- f. Identify and use correct forms of positive, comparative, and superlative adjectives.
- g. Continue to identify and use all grammar structure from prior grades.

2. Mechanics and Spelling - Demonstrate appropriate language mechanics in writing.

- a. Demonstrate correct use of capitals.
- b. Use correct formation of plurals.
- c. Demonstrate correct use of punctuation and recognize its effect on sentence structure.
- d. Use correct spelling of commonly misspelled words and homonyms.

3. Sentence structure - The student will demonstrate appropriate sentence structure in writing.

- a. Use parallel structure.
- b. Correct dangling and misplaced modifiers.
- c. Correct run-on sentences.

- d. Correct fragments.
- e. Correct comma splices.
- f. use dependent/independent and restrictive (essential)/nonrestrictive (nonessential) clauses to designate the importance of information.
- g. effectively use a variety of sentence structures and lengths to create a specific effect.

4. Apply appropriate manuscript conventions in writing including title page presentation, pagination, spacing and margins, and integration of sources and support material, by citing sources within the text, using direct quotations, and paraphrasing.

**Oral Language/Listening and Speaking: The student will demonstrate thinking skills in listening and speaking.**

Formulate thoughtful judgments about oral communication. Deliver focused and coherent presentations that convey clear and distinct perspectives and solid reasoning. Deliver polished formal and extemporaneous presentations that combine the traditional speech strategies of narration, exposition, persuasion, and description. Use gestures, tone, and vocabulary appropriate to the audience and purpose. Use the same Standard English conventions for oral speech that are used in writing. Participate independently and in groups to create oral presentations.

**Standard 1: Listening - The student will listen for information and for pleasure.**

1. Demonstrate proficiency in critical, empathetic, appreciative, and reflective listening to interpret, respond and evaluate speaker's messages.
2. Use effective strategies for listening that prepare for listening, identify the types of listening, and adopt appropriate strategies.
3. Listen and respond appropriately to presentations and performances of peers or published works such as original essays or narratives, interpretations of poetry, and individual or group performances.
4. Use effective strategies to evaluate own listening such as asking questions for clarification, comparing and contrasting interpretations with others, and researching points of interest or contention.
5. Use effective listening to provide appropriate feedback in a variety of situations such as conversations and discussions and informative, persuasive, or artistic presentations.

**Standard 2: Speaking - The student will express ideas and opinions in group or individual situations.**

1. Use a variety of verbal and nonverbal techniques in presenting oral messages such as pitch and tone of voice, posture, and eye contact; and demonstrate poise and control while presenting.

2. Use language and rhetorical strategies skillfully in informative and persuasive messages.
3. Use logical, ethical, and emotional appeals that enhance a specific tone and purpose.
4. Use effective and interesting language, including informal expressions for effect, Standard English for clarity, and technical language for specificity.
5. Evaluate when to use different kinds of effects (including visuals, music, sound, and graphics) to create a presentation.
6. Ask clear questions for a variety of purposes and respond appropriately to the questions of others.

**Visual Literacy: The student will interpret, evaluate, and compose visual messages.**

**Standard 1: Interpret Meaning - The student will interpret and evaluate the various ways visual image-makers including graphic artists, illustrators, and news photographers represent meaning.**

1. Use a range of strategies to interpret visual media (e.g., draw conclusions, make generalizations, synthesize material viewed, refer to images or information in visual media to support point of view).
2. Demonstrate how editing shapes meaning in visual media (e.g., omission of alternative perspectives; filtered or implied viewpoints; emphasis of specific ideas, images, or information in order to serve particular interests).

**Standard 2: Evaluate Media - The student will evaluate visual and electronic media, such as film, as compared with print messages.**

1. Use a variety of criteria (e.g., clarity, accuracy, effectiveness, bias, relevance of facts) to evaluate informational media (e.g., Web sites, documentaries, news programs).
2. Identify the rules and expectations about genre that can be manipulated for particular effects or purposes (e.g., combining or altering conventions of different genres, such as presenting news as entertainment; blurring of genres, such as drama-documentaries).

**Standard 3: Compose Visual Messages - The student will create a visual message that effectively communicates an idea.**

1. Use the effects of media on constructing his/her own perception of reality.
2. Use a variety of forms and technologies such as videos, photographs, and Web pages to communicate specific messages.

## GLOSSARY

**affix** - an element added to the base, stem, or root of a word to form a fresh word or stem. Principal kinds of affix are prefixes and suffixes. The prefix un- is an affix which added to balanced, makes unbalanced. The suffix -ed is an affix which, added to wish makes wished.

**alliteration** - a device commonly used in poetry and occasionally in prose: the repetition of an initial sound in two or more words of a phrase, line of poetry, or sentence (e.g., "Our souls have sight of that immortal sea.").

**analogies** - comparisons of the similar aspects of two different things.

**antonym** - words which have opposite meanings (e.g., hot and cold).

**archetype** - a descriptive detail, plot pattern, character type, or theme that recurs in many different cultures. One such archetype that appears in Shakespeare's Macbeth is the battle between the forces of good and the forces of evil.

**autobiography** - the biography of a person written by oneself.

**balanced reading program** - dual emphasis, stress on both skill and application of skills. A balanced reading program includes instruction in word identification skills as well as instruction in reading comprehension strategies. A balanced reading program includes reading to whole groups of students, guided reading activities with groups of students, shared reading, and independent reading by individual students.

**base word** - a word to which a prefix or suffix may be added to form a new word (e.g., go + ing = going).

**biography** - story about the achievements of others; helps students see history as the lives and events of real people and to appreciate the contribution of all cultures; subjects include explorers; political heroes and heroines; and achievers in literature, science, sports, the arts, and other disciplines; effectiveness depends on accuracy, authenticity, and an appealing narrative style.

**CVC** - consonant/vowel/consonant

**choral reading** - group reading aloud (e.g., choral reading may be used with a group to develop oral fluency or to make a presentation to an audience).

**cinquain** - poetic form; structure may follow a 2-4-6-8-2 syllable pattern or may follow a simpler form using words per line in a 1-2-3-4-1 pattern.

**compound word** - a word made by putting two or more words together (e.g., cowboy).

**consonant blend** - the joining of the sounds represented by two or more letters with minimal change in those sounds; consists of two or more consonants sounded together in such a way that each is heard (e.g., bl, gr, sp)

**consonant digraph** - consists of two consonants that together represent one sound (e.g., sh, ch, th, wh).

**consonants** - the letters of the alphabet (excluding a, e, i, o, u, usually including w and y); represented by a single sound made by a partial or complete obstruction of air.

**context clue** - the information from the immediate textual setting that helps identify a word or word group.

**contraction** - a short way to write two words as one by writing the two words together, leaving out one or more letters and replacing the missing letters with an apostrophe (e.g., cannot = can't).

**convention** - accepted practice in written language.

**cooperative learning** - activities in which students work together in groups to achieve a common goal.

**critical thinking** - logical, reflective thinking that is focused on deciding what to believe or do.

It may include analyzing arguments, seeing other points of view, and/or reaching conclusions.  
**cubing** - a method for discovering ideas about a topic by using six strategies (in any order) to investigate it: describe it, compare it, associate it, analyze it, apply it, and argue for or against it.

**cues/cueing system** - Sources of information used by readers to construct meaning. The language cueing system includes the graphophonic system — the relationship between oral and written language (phonics); the syntactic system — the relationship among linguistic units such as prefixes, suffixes, words, phrases, and clauses (grammar); and the semantic system — the meaning system of language.

**decode** - to analyze spoken or graphic symbols of a familiar language to ascertain their intended meaning.

**descriptive writing** - One of four chief composition modes. Writing which paints a picture of a person, place, thing, or idea using vivid details.

**dialect** - a social or regional variety of a particular language with phonological, grammatical, and lexical patterns that distinguish it from other varieties.

**diamante** - poetic form; structure follows a diamond shape of seven lines as follows: one noun, two adjectives, three participles, four related nouns, or a phrase of four words, three participles, two adjectives, and one noun.

**diphthong** - a vowel sound produced when the tongue moves from one vowel sound toward another vowel in the same syllable; two vowel sounds that come together so fast they are considered one syllable (e.g., ou, ow, oi/oy).

**directionality** - the ability to perceive spatial orientation accurately (left to right).

**epic literature** - long narratives detail the adventures of a single heroic figure; the center of action revolves around the relationship between the heroic figure and the gods; the main character symbolizes the ideal characteristics of greatness; many were originally written as poetry or songs; language is lyrical, stately, and rich with images.

**essays** - documentary records on diverse topics such as slavery, life in the 12th century England, or songs of the American Revolution; content is based upon or adapted from an original document in diary, letter, or essay form.

**etymology** - the study of the origins of words; an account of the history of a particular word.

**evaluative** - questioning that requires the reader to use experiential background knowledge in conjunction with information explicitly stated in the text (e.g., reading beyond the line).

**expository** - a reading or writing selection which explains, defines, and interprets. It covers all compositions which do not primarily describe an object, tell a story, or maintain a position (e.g., content-area textbooks, magazine articles, editorials, essays).

**fables** - tales concern human conduct with moralistic overcomes; animals exhibit human qualities and behaviors.

**fairytale** - a folktale about real-life problems usually with imaginary characters and magical events.

**fantasy** - characters or settings depart from what is realistic; the author makes the impossible believable; characters include humanized animals, good and evil stereotypes, heroes and heroines with magical powers.

**fiction** - plots are simple, fast-paced and predictable; characters and their actions appeal to young children; illustrations contribute to story line; rhyme and repetition encourage reading aloud; story and language appeal to sense of humor through word play, nonsense, surprise, and exaggeration; illustrations encourage participation through naming, pointing, and seeking.

**figurative language** - writing or speech not meant to be taken literally. Writers use figurative language to express ideas in vivid or imaginative ways (e.g., “the apple of my eye,” “forever chasing rainbows”).



**flashback** - the technique of disrupting the chronology of a narrative by shifting to an earlier time in order to introduce information.

**fluency** - freedom from word-identification problems that might hinder comprehension in silent reading or the expression of ideas in oral reading; automaticity, the ability to produce words or larger language units in a limited time interval.

**folktales** - time and place are generic (e.g., "Once upon a time in a faraway castle . . ."); stories are not intended to be accepted as true; plots use predictable motifs (e.g., ogres, magic, supernatural helpers, quests); story line is frequently a series of recurring actions; characters are one-dimensional.

**foreshadowing** - the technique of giving clues to coming events in a narrative.

**genre** - a category used to classify literary and other works, usually by form, technique, or content. The novel, the short story, and the lyric poems are all genres.

**grapheme** - a written or printed representation of a phoneme (e.g., b for /b/ and oy for /oi/ in boy)

**graphophonic** cues - the relationship between graphemes and the phonemes they represent. These symbol-sound-association skills can be used as an aid in recognizing a word that is not firmly fixed in sight vocabulary, especially if used in conjunction with other cues (e.g., determining the sound of the initial letter or two and the use of context may be all that is needed to recognize a word).

**high frequency words** - a word that appears many more times than most other words in spoken or written language (e.g., the, of, said, for).

**historical fiction** - stories are grounded in history but not restricted by it; the historical setting is an authentic and integral part of the story; characters' actions, dialogue, beliefs, and values are true to the historical period.

**homographs** - words which are spelled alike but have different sounds and meanings (e.g., bow and arrow vs. bow of a ship).

**homonyms** - words which sound the same but have different spellings and meanings (e.g., bear, bare).

**hyperbole** - obvious and deliberate exaggeration; an extravagant statement; a figure of speech not intended to be taken literally. Hyperboles are often used for dramatic or comic effect. Example: "He died a thousand deaths." "The discussion lasted an eternity."

**idiom** - an expression that does not mean what it literally says (e.g., to have the upper hand has nothing to do with the hands).

**imagery** - the use of language to create vivid pictures in the reader's mind.

**independent reading level** - the readability or grade level of material that is easy for a student to read with few word-identification problems and high comprehension.

**inferential** - a reasoned assumption about meaning that is not explicitly stated (e.g., reading between the lines).

**instructional reading level** - the reading ability or grade level of material that is challenging, but not frustrating for the student to read successfully with normal classroom instruction and support. irony - a figure of speech of which the literal meaning of the word is the opposite of its intended meaning (e.g., I could care less); a literary technique for implying, through plot or character, that the actual situation is quite different from that presented.

**journal** - a less private form of diary. It is more readily shared, allows more flexibility, and is more adaptable as a teaching tool. It is especially useful when used to elicit responses to reading, issues, and events under study.

**legends** - plots record deeds of past heroes; stories are presented as true; stories are usually secular and associated with wars and victories.

**literal** - information directly from the text (e.g., on the line).

**literature** – text created for a specific purpose (poem, story, novel, etc.).

**main idea** - the gist of a passage; central thought.

**medial** - coming in the middle of a word.

**metaphor** - a figure of speech in which a comparison is implied by analogy but is not stated.

**mode of writing** - any of the major types of writing (e.g., argumentation, description, exposition, narration).

**mood** - the emotional state of mind expressed by an author or artist in his or her work; the emotional atmosphere produced by an artistic work.

**mystery** - tightly woven plots have elements of suspense, danger, or intrigue; plots are fast-paced and frequently involve foreshadowing or flashback.

**myths** - stories are seen as true in the represented society; plots are usually associated with theology or ritual; accounts frequently explain natural phenomena.

**narrative** - a reading or writing selection which tells a story (e.g., fables, fairy tales, legends, tall tales, short stories, novels).

**neologism** - a new word or phrase, or a new meaning of, for an established word. Neologism also applies to new doctrines, such as a fresh new interpretation of the Bible or of some other work of literature.

**nonfiction** - information is factual and may be presented by detailed descriptions or examples; organization follows a logical pattern and may include textual aids.

**onomatopoeia** - the formation and use of words that suggest by their sounds the object or idea being named (e.g., bow wow, bang, buzz, crackle, clatter, hiss, murmur, sizzle, twitter, zoom).

**onset** - all of the sounds in a word that come before the first vowel.

**pacing** - setting one's own reading rate by using a pattern appropriate for the reading task.

**personification** - metaphorical figure of speech in which animals, ideas, and things are represented as having human qualities.

**phoneme** - a minimal sound unit of speech that distinguishes one word from another (e.g., lace, lake).

**phonemic awareness** - ability to manipulate, detect, and change sounds in spoken language (precedes phonics instruction).

**phonics** - a way of teaching reading and spelling that stresses symbol sound relationships; the ability to associate letters and letter combinations with sound and blending them into syllables and words.

**point-of-view** - the way in which an author reveals a perspective/viewpoint, as in characters, events, and ideas in telling a story.

**predictable text** - books with dramatic cumulative repetitions and dependable schemes of rhyme and language that help children anticipate and thereby decode the printed page (e.g., Brown Bear, Brown Bear).

**prediction strategy** - a person's use of knowledge about language and the context in which it occurs to anticipate what is coming in writing or speech.

**prefix** - a syllable or group of syllables attached to the beginning of a word, or root, to change its meaning (e.g., reprint, unpack, dislike).

**prior knowledge** - knowing that stems from previous experience. Note: prior knowledge is a key component of schema theories of reading and comprehension.

**propaganda** - an extreme form of written or spoken persuasion intended to influence the reader, though sometimes subtly, and usually by one-sided rather than objective argument (e.g., advertising propaganda to sell a product).

**Readers Theatre** - a performance of literature, as a story, play, poetry read aloud expressively by one or more persons, rather than acted.

**r-controlled vowels** - the modified sound of a vowel immediately preceding /r/ in the same

syllable, e.g., care, never, sir, or.

**recursive process** - moving back and forth through a text in either reading or writing, as new ideas are developed or problems encountered. In reading a text, recursive processes might include rereading earlier portions in light of later ones, looking ahead to see what topics are addressed or how a narrative ends, and skimming through text to search for particular ideas or events before continuing a linear reading. In creating a written composition, recursive processes include moving back and forth among the planning, drafting, and revising phases of writing.

**representing** - the presentation aspect of viewing. It is nonverbal depiction of communication.

**rime** - the part of a syllable that contains the vowel and all that follows it (e.g., the rime of bag is -ag; of swim, -im).

**root word** - a word with no prefix or suffix added; may also be referred to as a base word.

**Rule of Thumb** - a method students can use to make their reading selections. Students select a book, open it to any page, and read. One finger is raised for each unknown word. If they encounter more than five words that they cannot pronounce, probably it is a good idea to select another book.

**schwa** - A mark showing an absence of a vowel sound. The neutral vowel sound of most unstressed syllables in English, e.g., sound of a in ago or e in agent. This is the symbol, (, for this sound.

**science fiction** - relies on hypothesized scientific advancements and raises questions about the future of humanity; can be a useful vehicle for examining issues related to human survival in an uncertain future.

**semantic cues** - semantic cues involving word-meaning knowledge and a general sense of the test's meaning.

**sight word** - any word recognized by memory only.

**silent e** - an e that makes no sound that is usually found in the final position of an English root word.

**simile** - a combination of two things that are unlike, usually using the words like or as (e.g., soft as a kitten).

**soft c and g rule** - when c or g is followed by e, i, or y, it is usually soft.

**structural analysis** - the process of using knowledge of root words, endings, and affixes to decode words.

**subvocalize** - reading to oneself.

**suffix** - a syllable or group of syllables attached to the end of a word, or root, to change its meaning (e.g., s, ed, ing).

**Sustained Silent Reading/Drop Everything and Read** - child reads self-selected literature 10-30 minutes daily. A brief pair discussion, approximately 2 minutes, follows SSR/DEAR.

**syllabication** - the division of words into syllables.

**syllable** - a minimal unit of sequential speech sounds made up of a vowel sound or a vowel consonant combination and always contains a vowel sound.

**symbolism** - use of one thing to suggest something else, specifically the use of symbols to represent ideas in concrete ways; the implied meaning of a literary work.

**synonyms** - words which have the same meaning.

**syntactic cues** - syntactic cues involve implicit knowledge of word order and the functions of words. Only certain word sequences are allowable in English, and only certain kinds of words fit into particular slots in our sentence patterns (e.g., the baseball player \_\_\_\_\_ the ball. The missing word must be a verb).

**tall tales** - a story about an impossible or exaggerated happening related in a realistic,

matter-of-fact, and often humorous way (e.g., Paul Bunyan).

**text** – any printed material.

**theme** - a topic of discussion in writing. A major idea broad enough to cover the entire scope of a literary work of art. A theme can be a noun or phrase (e.g., friendship, justice).

**transitional spelling** - the result of an attempt to spell a word whose spelling is not already known, based on a writer's knowledge of the spelling system and how it works.

**VC** - vowel/consonant

**vowel digraph** - two vowels pronounced in such a way that the letters together stand for one sound (e.g. /a/ in sleigh).

**vowels** - a, e, i, o, u and sometimes y and w; made without any air obstruction.

**webbing** - instructional activities, particularly graphic ones, that are designed to show the relationship among ideas or topics in text or to plan for writing: cognitive mapping.

**writer's workshop** - instructional time that includes mini-lessons, peer/teacher conferences, process writing, sharing time, author's chair, sustained silent reading, and small teaching groups.

**writing folders** - a folder or notebook that contains writing generated during the various stages of the writing process.

**y as a vowel rule** - if y is the only vowel sound at the end of a one-syllable word, y has the sound of long i; if y is the only vowel at the end of a word of more than one syllable, y has a sound almost like long e.

# *Priority Academic Student Skills*

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## OVERVIEW

### MATHEMATICS

#### Grades 1 - 5

Developmentally appropriate mathematics curriculum for Grades 1 - 5 must encourage the exploration of a wide variety of mathematical ideas and promote in-depth levels of understanding by focusing on the key concepts and processes. Programs should fit the needs of the learner. Student success depends largely on the quality of the foundation that is established during the first years of school. The mathematics curriculum for Grades 1 - 5 must:

Help children develop conceptual understanding of number, space, and situational problems by designing explorations and investigations that make use of everyday objects and specially designed materials (e.g., base-10 blocks).

Actively involve children in doing mathematics with extensive and thoughtful use of manipulatives (concrete materials) in an environment that encourages children to develop, discuss, test, and apply ideas.

Develop newly introduced mathematics concepts by beginning instruction with concrete experiences, progressing to pictorial representations and culminating with abstract symbols.

Require appropriate reasoning and problem-solving experiences from the outset, instilling in students a sense of confidence in their ability to think and communicate mathematically, to detect patterns, and to analyze data.

Emphasize the power of mathematics in helping children understand and interpret their world and solve problems that occur in it.

Include a broad range of content by incorporating an informal approach to measurement, geometry, data analysis, and patterns (algebra). This helps students see the usefulness of mathematics and establishes a foundation for further study.

Provide appropriate and ongoing use of technology by enabling children to explore number ideas and patterns, to focus on problem-solving processes, and to investigate realistic applications. Calculators do not replace the need for students to be fluent with basic facts, have efficient computation strategies, be able to compute mentally, and do paper-and-pencil computation.

#### **NOTE:**

Asterisks (\*) have been used to identify standards and objectives that must be assessed by the local school district. All other skills may be assessed by the Oklahoma School Testing Program (OSTP).

# *Priority Academic Student Skills*

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## **MATHEMATICS PROCESS STANDARDS**

### **Grades 1-5**

The National Council of Teachers of Mathematics (NCTM) has identified five process standards: Problem Solving, Communication, Reasoning and Proof, Connections, and Representation. Using these processes students are actively involved in deepening mathematical understandings which lead to increasingly sophisticated abilities required to meet mathematical challenges. Following is an outline of the five process standards and associated objectives.

**NOTE:** When examples are given there is a progression in levels of difficulty from basic to more complex skills.

#### **Process Standard 1: Problem Solving**

1. Use problem-solving approaches (e.g., act out situations, represent problems with drawings and lists, use concrete, pictorial, graphical, oral, written, and/or algebraic models, understand a problem, devise a plan, carry out the plan, look back).
2. Formulate problems from everyday and mathematical situations (e.g., how many forks are needed?, how many students are absent?, how can we share/divide these cookies?, how many different ways can we find to compare these fractions?).
3. Develop, test, and apply strategies to solve a variety of routine and non-routine problems (e.g., look for patterns, make a table, make a problem simpler, process of elimination, trial and error).
4. Verify and interpret results with respect to the original problem (e.g., students explain verbally why an answer makes sense, explain in a written format why an answer makes sense, verify the validity of each step taken to obtain a final result).
5. Distinguish between necessary and irrelevant information in solving problems (e.g., play games and discuss “best” clues, write riddles with sufficient information, identify unnecessary information in written story problems).

#### **Process Standard 2: Communication**

1. Express mathematical ideas coherently and clearly to peers, teachers, and others (e.g., with verbal ideas, models or manipulatives, pictures, or symbols).
2. Extend mathematical knowledge by considering the thinking and strategies of others (e.g., agree or disagree, rephrase another student’s explanation, analyze another student’s explanation).
3. Relate manipulatives, pictures, diagrams, and symbols to mathematical ideas.
4. Represent, discuss, write, and read mathematical ideas and concepts. Start by relating everyday language to mathematical language and symbols and progress toward the use of appropriate terminology (e.g., “add more” becomes “plus”, “repeated addition” becomes “multiplication”, “fair share” becomes “divide”, “balance the equation” becomes “solve the equation”).

## *Priority Academic Student Skills*

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### **Process Standard 3: Reasoning**

1. Explain mathematical situations using patterns and relationships (e.g., identify patterns in situations, represent patterns in a variety of ways, extend patterns to connect with more general cases).
2. Demonstrate thinking processes using a variety of age-appropriate materials and reasoning processes (e.g., manipulatives, models, known facts, properties and relationships, inductive [specific to general], deductive [general to specific], spatial, proportional, logical reasoning [“and” “or” “not”] and recursive reasoning).
3. Make predictions and draw conclusions about mathematical ideas and concepts. Predictions become conjectures and conclusions become more logical as students mature mathematically.

### **Process Standard 4: Connections**

1. Relate various concrete and pictorial models of concepts and procedures to one another (e.g., use two colors of cubes to represent addition facts for the number 5, relate patterns on a hundreds chart to multiples, use base-10 blocks to represent decimals).
2. Link concepts to procedures and eventually to symbolic notation (e.g., represent actions like snap, clap, clap with symbols A B B, demonstrate  $3 \bullet 4$  with a geometric array, divide a candy bar into 3 equal pieces that represent one piece as  $\frac{1}{3}$ ).
3. Recognize relationships among different topics within mathematics (e.g., the length of an object can be represented by a number, multiplication facts can be modeled with geometric arrays,  $\frac{1}{2}$  can be written as .5 and 50%).
4. Use mathematical strategies to solve problems that relate to other curriculum areas and the real world (e.g., use a timeline to sequence events, use symmetry in art work, explore fractions in quilt designs and to describe pizza slices).

### **Process Standard 5: Representation**

1. Create and use a variety of representations appropriately and with flexibility to organize, record, and communicate mathematical ideas (e.g., dramatizations, manipulatives, drawings, diagrams, tables, graphs, symbolic representations).
2. Use representations to model and interpret physical, social, and mathematical situations (e.g., counters, pictures, tally marks, number sentences, geometric models; translate between diagrams, tables, charts, graphs).

# *Priority Academic Student Skills*

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## MATHEMATICS CONTENT STANDARDS

### Grade 1

The following concepts and skills should be mastered by all students upon completion of first grade. The **Major Concepts** should be taught in depth using a variety of methods, applications, and connections to other concepts when possible so that all students have accessibility to and an understanding of these concepts.

#### MAJOR CONCEPTS

- **Develop an understanding of whole number relationships, including grouping tens and ones.**
- **Develop an understanding of addition and subtraction. Acquire strategies for basic addition and subtraction facts.**
- **Recognize and describe basic two- and three-dimensional shapes.**

#### **First Grade Suggested Materials Kit:**

snap cubes, keys, fabric, macaroni, buttons, pattern blocks, children's books, counters, beans, base-10 blocks, dominoes, calculators, geoboards, tangrams, attribute blocks, straws, containers, balance scales, rulers, coins, clocks, graph mats, painted beans or two-color counters, fraction circles, fraction squares

**Standard 1: Algebraic Reasoning: Patterns and Relationships - The student will use a variety of problem-solving approaches to model, describe and extend patterns.**

1. Describe, extend and create patterns using concrete objects (e.g., sort a bag of objects by attributes and orally communicate the pattern for each grouping).
2. Describe, extend and create patterns with numbers in a variety of situations (e.g., addition charts, skip counting, calendars).
3. Demonstrate number patterns by counting as many as 100 objects by 1's, 2's, 5's and 10's.
4. Recognize and apply the commutative and identity properties of addition using models and manipulatives to develop computational skills (e.g.,  $2 + 4 = 4 + 2$ ,  $3 + 0 = 3$ ).

**Standard 2: Number Sense and Operation - The student will read, write and model numbers and number relationships. The student will use models to construct basic addition and subtraction facts with whole numbers.**

1. Number Sense
  - a. Use concrete models of tens and ones to develop the concept of place value.
  - b. Compare objects by size and quantity (e.g., more than, less than, equal to).
  - c. Read and write numerals to 100.



## *Priority Academic Student Skills*

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- d. Manipulate physical models and recognize graphical representation of fractional parts (e.g., halves, thirds, fourths).
2. Number Operations
- a. Develop and apply the concepts of addition and subtraction.
    - i. Use models to construct addition and subtraction facts with sums up to twenty (e.g., counters, cubes).
    - ii. Perform addition by joining sets of objects and subtraction by separating and by comparing sets of objects.
    - iii. Demonstrate fluency (i.e., memorize and apply) with basic addition facts to make a maximum sum of 10 and the associated subtraction facts (e.g.,  $7+3=10$  and  $10-3=7$ ).
  - b. Write addition and subtraction number sentences for problem-solving situations.
  - c. Acquire strategies for making computations using tens and ones to solve two-digit addition and subtraction problems without regrouping (e.g., use estimation, number sense to judge reasonableness, counting on, use base-ten blocks).

**Standard 3: Geometry - The student will use geometric properties and relationships to recognize and describe shapes.**

- 1. Sort and identify congruent shapes.
- 2. Identify, name, and describe two-dimensional geometric shapes (including rhombi) and objects in everyday situations (e.g., the face of a round clock is a circle, a desktop is a rectangle).
- 3. Identify, name and describe three-dimensional geometric shapes (including cones) and objects in everyday situations (e.g., a can is a cylinder, a basketball is a sphere).
- 4. Use language to describe relationships of objects in space (e.g., above, below, behind, between).

**Standard 4: Measurement - The student will develop and use measurement skills in a variety of situations.**

- 1. Linear Measurement: Measure objects with one-inch tiles and with a standard ruler to the nearest inch.
- 2. Time
  - a. Tell time on digital and analog clocks on the hour and half-hour.
  - b. Develop the concepts of days, weeks, and months using a calendar.
- 3. Money: Identify and name the value of pennies, dimes, nickels, and quarters.

## *Priority Academic Student Skills*

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**Standard 5: Data Analysis - The student will demonstrate an understanding of data collection and display.**

1. Data Analysis
  - a. Organize, describe, and display data using concrete objects, pictures, or numbers.
  - b. Formulate and solve problems that involve collecting and analyzing data common to children's lives (e.g., color of shoes, numbers of pets, favorite foods).

# *Priority Academic Student Skills*

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## MATHEMATICS CONTENT STANDARDS

### Grade 2

The following concepts and skills should be mastered by all students upon completion of second grade. The **Major Concepts** should be taught in depth using a variety of methods, applications, and connections to other concepts when possible so that all students have accessibility to and an understanding of these concepts.

#### MAJOR CONCEPTS

- **Develop an understanding of the base-ten system and place value within that system, up to the hundreds place.**
- **Develop quick recall of addition facts and related subtraction facts (fact families) as well as fluency with multi-digit addition and subtraction.**
- **Develop an understanding of linear measurement facility in measuring lengths.**

#### **Second Grade Suggested Materials Kit:**

snap cubes, keys, fabric, macaroni, buttons, cans, objects from nature, pattern blocks, children's books, links, rods, counters, beans, base-10 blocks, dominoes, calculators, geoboards, tangrams, attribute blocks, straws, containers, balance scales, rulers, tape measures, cups, spoons, coins, clocks, graph mats, painted beans or two-color counters

**Standard 1: Algebraic Reasoning: Patterns and Relationships - The student will use a variety of problem-solving approaches to model, describe and extend patterns.**

1. Describe, extend, and create patterns using symbols, shapes, or designs (e.g., repeating and growing patterns made up of sets of shapes or designs, create patterns by combining different shapes and taking them apart).
2. Formulate and record generalizations about number patterns in a variety of situations (e.g., addition and subtraction patterns, even and odd numbers, build a table showing the cost of one pencil at 10 cents, 2 pencils at 20 cents).
3. Find unknown values in open number sentences with a missing addend and use to solve everyday problems.
4. Recognize and apply the associative property of addition (e.g.,  $3 + (2 + 1) = (3 + 2) + 1$ ).

**Standard 2: Number Sense and Operation - The student will use numbers and number relationships to acquire basic facts and will compute with whole numbers less than 100.**

1. Number Sense
  - a. Use concrete models of hundreds, tens, and ones to develop the concepts of place value and link the concepts to the reading and writing of numbers (e.g., base-10 blocks).

## *Priority Academic Student Skills*

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- b. Represent a number in a variety of ways (e.g., write 15 as  $8 + 7$ , write 25 as 2 tens + 5 ones or as 1 ten + 15 ones).
  - c. Write a number sentence to compare numbers less than 1,000 (e.g.,  $425 > 276$ ,  $73 < 107$ , page 351 comes after 350, 753 is between 700 and 800).
  - d. Demonstrate (using concrete objects, pictures, and numerical symbols) fractional parts including halves, thirds, fourths and common percents (25%, 50%, 75%, and 100%).
2. Number Operations
- a. Demonstrate fluency (i.e., memorize and apply) with basic addition facts to make a maximum sum of 18 and the associated subtraction facts (e.g.,  $15+3=18$  and  $18-3=15$ ).
  - b. Use strategies to estimation and solve sums and differences (e.g., compose, decompose and regroup numbers, use knowledge of 10 to estimate quantities and sums [two numbers less than 10 cannot add up to more than 20].)
  - c. Solve two-digit addition and subtraction problems with and without regrouping using a variety of techniques.
  - d. Use concrete models to develop understanding of multiplication as repeated addition and division as successive subtraction.

**Standard 3: Geometry - The student will use geometric properties and relationships to recognize and describe shapes.**

1. Identify symmetric and congruent shapes and figures.
2. Investigate and predict the results of putting together and taking apart two-dimensional shapes.

**Standard 4: Measurement - The student will use appropriate units of measure in a variety of situations.**

1. Linear Measurement
  - a. Measure objects using standard units (e.g., measure length to the nearest foot, inch, and half inch).
  - b. Select and use appropriate units of measurement in problem solving and everyday situations.
2. Time
  - a. Tell time on digital and analog clocks on the quarter-hour.
  - b. Solve problems involving number of days in a week, month, or year and problems involving weeks in a month and year.
3. Money

## *Priority Academic Student Skills*

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- a. Identify and count money up to a twenty dollar bill.
- b. Recognize and write different amounts of money using dollar and cent notation.

**Standard 5: Data Analysis - The student will demonstrate an understanding of data collection, display, and interpretation.**

- 1. Data Analysis
  - a. Collect, sort, organize, and display data in charts, bar graphs, and tables (e.g., collect data on teeth lost and display results in a chart).
  - b. Summarize and interpret data in charts, bar graphs, and tables.

# *Priority Academic Student Skills*

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## MATHEMATICS CONTENT STANDARDS

### Grade 3

The following concepts and skills should be mastered by all students upon completion of third grade. The **Major Concepts** should be taught in depth using a variety of methods, applications, and connections to other concepts when possible so that all students have accessibility to and an understanding of these concepts.

#### MAJOR CONCEPTS

- **Develop an understanding of multiplication and division and acquire strategies for basic multiplication facts and related division facts (fact families).**
- **Develop an understanding of fractional parts and fraction equivalence.**
- **Describe and analyze various properties of two-dimensional shapes.**

#### **Third Grade Suggested Materials Kit:**

snap cubes, pattern blocks, 1-inch color tiles, centimeter grid paper, hundreds charts, children's books, links, rods, counters, beans, base-10 blocks, dominoes, calculators, geoboards, tangrams, attribute blocks, mirrors, flexible straws, egg cartons, containers, balance scales, rulers, tape measures, cups, spoons, coins, clocks, place value mats, graph mats

#### **Standard 1: Algebraic Reasoning: Patterns and Relationships - The student will use a variety of problem-solving approaches to extend and create patterns.**

1. Describe (orally or in written form), create, extend and predict patterns in a variety of situations (e.g., 3, 6, 9, 12 . . . , use a function machine to generate input and output values for a table, show multiplication patterns on a hundreds chart, determine a rule and generate additional pairs with the same relationship).
2. Find unknowns in simple arithmetic problems by solving open sentences (equations) and other problems involving addition, subtraction, and multiplication.
3. Recognize and apply the commutative and identity properties of multiplication using models and manipulative to develop computational skills (e.g.,  $3 \cdot 5 = 5 \cdot 3$ ,  $7 \cdot 1 = 7$ ).

#### **Standard 2: Number Sense and Operation – The student will use numbers and number relationships to acquire basic facts. The student will estimate and compute with whole numbers.**

1. Number Sense
  - a. Place Value

**Note:** Asterisks (\*) have been used to identify standards and objectives that must be assessed by the local school district. All other skills may be assessed by the Oklahoma School Testing Program (OSTP).

## ***Priority Academic Student Skills***

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- i. Model the concept of place value through 4 digits (e.g., base-10 blocks, bundles of 10s, place value mats).
    - ii. Read and write whole numbers up to 4 digits (e.g., expanded form, standard form).
  - b. Whole Numbers and Fractions
    - i. Compare and order whole numbers up to 4 digits.
    - ii. Create and compare physical and pictorial models of equivalent and nonequivalent fractions including halves, thirds, fourths, eighths, tenths, twelfths, and common percents (25%, 50%, 75%, 100%) (e.g., fraction circles, pictures, egg cartons, fraction strips, number lines).
2. Number Operations
  - a. Estimate and find the sum or difference (with and without regrouping) of 3- and 4-digit numbers using a variety of strategies to solve application problems.
  - b. Multiplication Concepts and Fact Families
    - i. Use physical models and a variety of multiplication algorithms to find the product of multiplication problems with one-digit multipliers.
    - ii. Demonstrate fluency (memorize and apply) with basic multiplication facts up to  $10 \times 10$  and the associated division facts (e.g.,  $5 \times 6 = 30$  and  $30 \div 6 = 5$ ).
    - iii. Estimate the product of 2-digit by 2-digit numbers by rounding to the nearest multiple of 10 to solve application problems.

### **Standard 3: Geometry - The student will use geometric properties and relationships to recognize and describe shapes.**

1. Identify and compare attributes of two- and three- dimensional shapes and develop vocabulary to describe the attributes (e.g., count the edges and faces of a cube, the radius is half of a circle, lines of symmetry).
2. Analyze the effects of combining and subdividing two- and three-dimensional figures (e.g., folding paper, tiling, nets, and rearranging pieces of solids).
3. Make and use coordinate systems to specify locations and shapes on a grid with ordered pairs and to describe paths from one point to another point on a grid.

### **Standard 4: Measurement - The student will use appropriate units of measure to solve problems.**

1. Measurement
  - a. Choose an appropriate measurement instrument and measure the length of objects to the nearest inch or half-inch and the weight of objects to the nearest pound or ounce.

## *Priority Academic Student Skills*

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- \*b. Choose an appropriate measurement instrument and measure the length of objects to the nearest meter or centimeter and the weight of objects to the nearest gram or kilogram.
  - c. Develop and use the concept of perimeter of different shapes to solve problems.
  - \*d. Develop and use strategies to choose an appropriate unit and measurement instrument to estimate measurements (e.g., use parts of the body as benchmarks for measuring length).
2. Time and Temperature
- a. Solve simple addition problems with time (e.g., 15 minutes added to 1:10 p.m.).
  - b. Tell time on a digital and analog clock to the nearest 5 minute.
  - c. Read a thermometer and solve for temperature change.
3. Money: Determine the correct amount of change when a purchase is made with a five dollar bill.

### **Standard 5: Data Analysis - The student will demonstrate an understanding of collection, display, and interpretation of data and probability.**

1. Data Analysis
- \*a. Pose questions, collect, record, and interpret data to help answer questions (e.g., which was the most popular booth at our carnival?).
  - b. Read graphs and charts, identify the main idea, draw conclusions, and make predictions based on the data (e.g., predict how many children will bring their lunch based on a menu).
  - c. Construct bar graphs, frequency tables, line graphs (plots), and pictographs with labels and a title from a set of data.
2. Probability: Describe the probability (more, less, or equally likely) of chance events.

**Blueprints for each Criterion-Referenced Test reflect the degree of representation given on the test to each *PASS* standard and objective. The item specifications give more specific information about content limits for each objective as well as sample items. To access the most current blueprints and item specifications available, go to the State Department of Education Web site at <<http://sde.state.ok.us>> then click on teacher icon/picture to get to the teacher resources page. From the teacher resources page, click on “Accountability and Assessment” to go to the assessment page and then click on “Oklahoma Core Curriculum Tests (OCCT)” on the menu on the left side of the screen.**



# *Priority Academic Student Skills*

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## MATHEMATICS CONTENT STANDARDS

### Grade 4

The following concepts and skills should be mastered by all students upon completion of fourth grade. The **Major Concepts** should be taught in depth using a variety of methods, applications, and connections to other concepts when possible so that all students have accessibility to and an understanding of these concepts.

#### MAJOR CONCEPTS

- **Develop quick recall of multiplication facts and related division facts (fact families) and fluency with whole number multiplication.**
- **Develop an understanding of decimals and their connection to fractions.**
- **Develop an understanding of area and acquire strategies for finding area of two-dimensional shapes.**

#### **Fourth Grade Suggested Materials Kit:**

snap cubes, number cubes, pattern blocks, 1-inch color tiles, grid paper, hundreds charts, cereal and shoe boxes, children's books, journals, rods, counters, beans, base-10 blocks, calculators, geoboards, dot paper, clay, toothpicks, mirrors, flexible straws, pipe cleaners, egg cartons, containers, balance scales, rulers, tape measures, thermometers, cups, spoons, coins, clocks, graph mats, spinners, painted beans or two-color counters

**Standard 1: Algebraic Reasoning: Patterns and Relationships - The student will use a variety of problem-solving approaches to create, extend, and analyze patterns.**

1. Discover, describe, extend, and create a wide variety of patterns using tables, graphs, rules, and verbal models (e.g., determine the rule from a table or “function machine”, extend visual and number patterns).
2. Find variables in simple arithmetic problems by solving open sentences (equations) and other problems involving addition, subtraction, multiplication, and division with whole numbers.
3. Recognize and apply the associative property of multiplication (e.g.,  $6 \cdot (2 \cdot 3) = (6 \cdot 2) \cdot 3$ ).

**Standard 2: Number Sense and Operation – The student will use numbers and number relationships to acquire basic facts. The student will estimate and compute with whole numbers and fractions.**

1. Number Sense
  - a. Place Value

**Note:** Asterisks (\*) have been used to identify standards and objectives that must be assessed by the local school district. All other skills may be assessed by the Oklahoma School Testing Program (OSTP).

## *Priority Academic Student Skills*

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- i. Apply the concept of place value through 6 digits (e.g., write numbers in expanded form).
  - ii. Model, read, write and rename decimal numbers to the hundredths (e.g., money, numerals to words).
  - b. Whole Number, Fraction, and Decimal
    - i. Compare and order whole numbers and decimals to the hundredths place (e.g., pictures of shaded regions of two-dimensional figures, use  $>$ ,  $<$ ,  $=$  symbols).
    - ii. Use 0,  $\frac{1}{2}$ , and 1 or 0, 0.5, and 1 as benchmarks and place additional fractions, decimals, and percents on a number line (e.g.,  $\frac{1}{3}$ ,  $\frac{3}{4}$ , 0.7, 0.4, 62%, 12%).
    - iii. Compare, add, or subtract fractional parts (fractions with like denominators and decimals) using physical or pictorial models. (e.g., egg cartons, fraction strips, circles, and squares).
    - \*iv. Explore and connect negative numbers using real world situations (e.g. owing money, temperature, measuring elevations above and below sea level).
2. Number Operation
- a. Estimate and find the product of up to three-digit by three-digit using a variety of strategies to solve application problems.
  - b. Division Concepts and Fact Families
    - i. Demonstrate fluency (memorize and apply) with basic division facts up to  $144 \div 12$  and the associated multiplication facts (e.g.,  $144 \div 12 = 12$  and  $12 \times 12 = 144$ ).
    - ii. Estimate the quotient with one- and two-digit divisors and a two- or three-digit dividend to solve application problems.
    - iii. Find the quotient (with and without remainders) with 1-digit divisors and a 2- or 3-digit dividend to solve application problems.

**Standard 3: Geometry - The student will use geometric properties and relationships to analyze shapes.**

- 1. Identify, draw, and construct models of intersecting, parallel, and perpendicular lines.
- 2. Identify and compare angles equal to, less than, or greater than 90 degrees (e.g., use right angles to determine the approximate size of other angles).
- 3. Identify, draw, and construct models of regular and irregular polygons including triangles, quadrilaterals, pentagons, hexagons, heptagons, and octagons to solve problems.
- 4. Describe the effects on two-dimensional objects when they slide (translate), flip (reflect), and turn (rotate) (e.g., tessellations).

## *Priority Academic Student Skills*

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### **Standard 4: Measurement - The student will solve problems using appropriate units of measure in a variety of situations.**

1. Measurement
  - a. Estimate the measures of a variety of objects using customary units.
  - b. Establish benchmarks for metric units and estimate the measures of a variety of objects (e.g., mass: the mass of a raisin is about 1 gram, length: the width of a finger is about 1 centimeter).
  - c. Select appropriate customary and metric units of measure and measurement instruments to solve application problems involving length, weight, mass, area, and volume.
  - d. Develop and use the concept of area of different shapes using grids to solve problems.
2. Time and Temperature
  - a. Solve elapsed time problems.
  - b. Read thermometers using different intervals (intervals of 1, 2, or 5) and solve for temperature change.
3. Money: Determine the correct amount of change when a purchase is made with a twenty dollar bill.

### **Standard 5: Data Analysis - The student will demonstrate an understanding of collection, display, and interpretation of data and probability.**

1. Data Analysis
  - a. Read and interpret data displays such as tallies, tables, charts, and graphs and use the observations to pose and answer questions (e.g., choose a table in social studies of population data and write problems).
  - b. Collect, organize and record data in tables and graphs (e.g., line graphs (plots), bar graphs, pictographs).
2. Probability: Predict the probability of outcomes of simple experiments using words such as certain, equally likely, impossible (e.g., coins, number cubes, spinners).
3. Central Tendency: Determine the median (middle), and the mode (most often) of a set of data.

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## *Priority Academic Student Skills*

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**Assessment” to go to the assessment page and then click on “Oklahoma Core Curriculum Tests (OCCT)” on the menu on the left side of the screen.**

# *Priority Academic Student Skills*

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## MATHEMATICS CONTENT STANDARDS

### Grade 5

The following concepts and skills should be mastered by all students upon completion of fifth grade. The **Major Concepts** should be taught in depth using a variety of methods, applications, and connections to other concepts when possible so that all students have accessibility to and an understanding of these concepts.

#### MAJOR CONCEPTS

- **Develop an understanding of and fluency with division of whole numbers.**
- **Develop an understanding of and fluency with addition and subtraction of fractions and decimals.**
- **Recognize patterns and their associated rules and develop basic algebraic strategies for solving problems with variables.**

#### **Fifth Grade Suggested Materials Kit:**

snap cubes, rods, 1-inch color tiles, calculators, boxes, pawns, number cubes, balance scale, fraction strips, tangrams, protractors, double-sided measuring tapes, spinners, geometric solids, squares, circles, base-10 blocks, 10 x 10 grid paper, pattern blocks, fraction and decimal towers, geoboards, computer tessellation software

**Standard 1: Algebraic Reasoning: Patterns and Relationships – The student will use algebraic methods to describe patterns and solve problems in a variety of contexts.**

1. Describe rules that produce patterns found in tables, graphs, and models, and use variables (e.g., boxes, letters, pawns, number cubes, or other symbols) to solve problems or to describe general rules in algebraic expression or equation form.
2. Use algebraic problem-solving techniques (e.g., use a balance to model an equation and show how subtracting a number from one side requires subtracting the same amount from the other side) to solve problems.
3. Recognize and apply the commutative, associative, and distributive properties to solve problems (e.g.,  $3 \times (2 + 4) = (3 \times 2) + (3 \times 4)$ ).

**Standard 2: Number Sense and Operation – The student will use numbers and number relationships to acquire basic facts. The student will estimate and compute with whole numbers, fractions, and decimals.**

1. Number Sense
  - a. Apply the concept of place value of whole numbers through hundred millions (9 digits) and model, read, and write decimal numbers through the thousandths.

**Note:** Asterisks (\*) have been used to identify standards and objectives that must be assessed by the local school district. All other skills may be assessed by the Oklahoma School Testing Program (OSTP).

## ***Priority Academic Student Skills***

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- b. Represent with models the connection between fractions and decimals, compare and order fractions and decimals, and be able to convert from one representation to the other to solve problems. (e.g., use 10x10 grids, base 10 blocks).
  - c. Identify and compare integers using real world situations. (e.g., owing money, temperature, or measuring elevations above and below sea level).
  - \*d. Identify and apply factors, multiples, prime, and composite numbers in a variety of problem-solving situations (e.g., build rectangular arrays for numbers 1-100 and classify as prime or composite, use common factors to add fractions).
2. Number Operations
- a. Estimate, add, or subtract decimal numbers with same and different place values to solve problems (e.g.,  $3.72 + 1.4$ ,  $\$4.56 - \$2.12$ ).
  - b. Estimate add, or subtract fractions (including mixed numbers) to solve problems using a variety of methods (e.g., use fraction strips, use area models, find a common denominator).
  - c. Estimate and find the quotient (with and without remainders) with two-digit divisors and a two- or three-digit dividend to solve application problems.

### **Standard 3: Geometry - The student will apply geometric properties and relationships.**

- 1. Compare and contrast the basic characteristics of circle and polygons (triangles, quadrilaterals, pentagons, hexagons, heptagons, octagons).
- 2. Classify angles (e.g., acute, right, obtuse, straight).

### **Standard 4: Measurement - The student use appropriate units of measure to solve problems in a variety of contexts.**

- 1. Measurement
  - a. Compare, estimate, and determine the measurement of angles.
  - b. Develop and use the formula for perimeter and area of a square and rectangle to solve application problems.
  - c. Convert basic measurements of volume, mass and distance within the same system for metric and customary units (e.g., inches to feet, hours to minutes, centimeters to meters).
- 2. Money: Solve a variety of problems involving money.

### **Standard 5: Data Analysis - The student will use data analysis, statistics and probability to interpret data in a variety of contexts.**

- 1. Data Analysis

## *Priority Academic Student Skills*

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- a. Compare and translate displays of data and justify the selection of the type of table or graph (e.g., charts, tables, bar graphs, pictographs, line graphs, circle graphs, Venn diagrams).
  - \*b. Formulate questions, design investigations, consider samples, and collect, organize, and analyze data using observation, measurement, surveys, or experiments (e.g., how far can 5th graders throw a softball based on where it first hits the ground?).
2. Probability
- a. Determine the probability of events occurring in familiar contexts or experiments and express probabilities as fractions from zero to one (e.g., find the fractional probability of an event given a biased spinner).
  - b. Use the fundamental counting principle on sets with up to four items to determine the number of possible combinations (e.g. create a tree diagrams to see possible combinations).
3. Central Tendency: Determine the range (spread), mode (most often), and median (middle) of a set of data.

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# *Priority Academic Student Skills*

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## OVERVIEW

### Grades 6 - 8

Students in the middle grades will expand and deepen their knowledge of numbers, computation, estimation, measurement, geometry, statistics, probability, patterns and functions, and the fundamental concepts of algebra by focusing on meaningful mathematics in each of these areas.

Instruction in the middle grades should include activities in which the students actively work to pose and solve problems both individually and together. Learning tools such as concrete models, fraction manipulatives, algebra tiles, geoboards, calculators and computers are beneficial and should be available to all students.

## MATHEMATICS PROCESS STANDARDS

### Grades 6 - 8

The National Council of Teachers of Mathematics (NCTM) has identified five process standards: Problem Solving, Reasoning and Proof, Communication, Connections, and Representation. Active involvement by students using these processes is likely to broaden mathematical understandings and lead to increasingly sophisticated abilities required to meet mathematical challenges in meaningful ways.

#### **Process Standard 1: Problem Solving**

1. Develop and test strategies to solve practical, everyday problems which may have single or multiple answers.
2. Use technology to generate and analyze data to solve problems.
3. Formulate problems from situations within and outside of mathematics and generalize solutions and strategies to new problem situations.
4. Evaluate results to determine their reasonableness.
5. Apply a variety of strategies (e.g., restate the problem, look for a pattern, diagrams, solve a simpler problem, work backwards, trial and error) to solve problems, with emphasis on multistep and non-routine problems.
6. Use oral, written, concrete, pictorial, graphical, and/or algebraic methods to model mathematical situations.

#### **Process Standard 2: Communication**

1. Discuss, interpret, translate (from one to another) and evaluate mathematical ideas (e.g., oral, written, pictorial, concrete, graphical, algebraic).
2. Reflect on and justify reasoning in mathematical problem solving (e.g., convince, demonstrate, formulate).
3. Select and use appropriate terminology when discussing mathematical concepts and ideas.



## *Priority Academic Student Skills*

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### **Process Standard 3: Reasoning**

1. Identify and extend patterns and use experiences and observations to make suppositions.
2. Use counter examples to disprove suppositions (e.g., all squares are rectangles, but are all rectangles squares?).
3. Develop and evaluate mathematical arguments (e.g., agree or disagree with the reasoning of other classmates and explain why).
4. Select and use various types of reasoning (e.g., recursive [loops], inductive [specific to general], deductive [general to specific], spatial, and proportional).

### **Process Standard 4: Connections**

1. Apply mathematical strategies to solve problems that arise from other disciplines and the real world.
2. Connect one area or idea of mathematics to another (e.g., relates equivalent number representations to each other, relate experiences with geometric shapes to understanding ratio and proportion).

### **Process Standard 5: Representation**

1. Use a variety of representations to organize and record data (e.g., use concrete, pictorial, and symbolic representations).
2. Use representations to promote the communication of mathematical ideas (e.g., number lines, rectangular coordinate systems, scales to illustrate the balance of equations).
3. Develop a variety of mathematical representations that can be used flexibly and appropriately (e.g., base-10 blocks to represent fractions and decimals, appropriate graphs to represent data).
4. Use a variety of representations to model and solve physical, social, and mathematical problems (e.g., geometric objects, pictures, charts, tables, graphs).

# *Priority Academic Student Skills*

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## MATHEMATICS CONTENT STANDARDS

### Grade 6

The following concepts and skills should be mastered by all students upon completion of sixth grade. The **Major Concepts** should be taught in depth using a variety of methods, applications, and connections to other concepts when possible so that all students have accessibility to and an understanding of these concepts.

#### MAJOR CONCEPTS

- **Develop an understanding of and fluency with multiplication and division of fractions and decimals.**
- **Write, interpret, use, simplify, and solve mathematical expressions and equations.**
- **Develop a basic understanding of integer operations.**

**Standard 1: Algebraic Reasoning: Patterns and Relationships – The student will use algebraic methods to describe patterns, simplify and write algebraic expressions and equations, and solve simple equations in a variety of contexts.**

1. Generalize and extend patterns and functions using tables, graphs, and number properties (e.g., number sequences, prime and composite numbers, recursive patterns like the Fibonacci numbers).
2. Write algebraic expressions and simple equations that correspond to a given situation.
3. Use substitution to simplify and evaluate algebraic expressions (e.g., if  $x = 5$  evaluate  $3 - 5x$ ).
4. Write and solve one-step equations with one variable using number sense, the properties of operations, and the properties of equality (e.g.,  $1/3x = 9$ ).

**Standard 2: Number Sense and Operation – The student will use numbers and number relationships to solve a variety of problems. The student will estimate and compute with integers, fractions, and decimals.**

1. Number Sense: Convert compare, and order decimals, fractions, and percents using a variety of methods.
2. Number Operations
  - a. Multiply and divide fractions and mixed numbers to solve problems using a variety of methods.

**Note:** Asterisks (\*) have been used to identify standards and objectives that must be assessed by the local school district. All other skills may be assessed by the Oklahoma School Testing Program (OSTP).

## ***Priority Academic Student Skills***

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- b. Multiply and divide decimals with one- or two-digit multipliers or divisors to solve problems.
- c. Estimate and find solutions to single and multi-step problems using whole numbers, decimals, fractions, and percents (e.g.,  $7/8 + 8/9$  is about 2,  $3.9 + 5.3$  is about 9).
- d. Use the basic operations on integers to solve problems.
- e. Build and recognize models of multiples to develop the concept of exponents and simplify numerical expressions with exponents and parentheses using order of operations.

**Standard 3: Geometry - The student will use geometric properties and relationships to recognize, describe, and analyze shapes and representations in a variety of contexts.**

- 1. Compare and contrast the basic characteristics of three-dimensional figures (pyramids, prisms, cones, and cylinders).
- 2. Compare and contrast congruent and similar figures.
- 3. Identify the characteristics of the rectangular coordinate system and use them to locate points and describe shapes drawn in all four quadrants.

**Standard 4: Measurement - The student will use measurements within the metric and customary systems to solve problems in a variety of contexts.**

- 1. Use formulas to find the circumference and area of circles in terms of pi.
- 2. Convert, add, or subtract measurements within the same system to solve problems (e.g.,  $9' 8'' + 3' 6''$ , 150 minutes = \_\_ hours and \_\_ minutes, 6 square inches = \_\_ square feet).

**Standard 5: Data Analysis - The student will use data analysis, probability, and statistics to interpret data in a variety of contexts.**

- 1. Data Analysis: Organize, construct displays, and interpret data to solve problems (e.g., data from student experiments, tables, diagrams, charts, graphs).
- 2. Probability: Use the fundamental counting principle on sets with up to five items to determine the number of possible combinations.
- 3. Central Tendency: Find the measures of central tendency (mean, median, mode, and range) of a set of data (with and without outliers) and understand why a specific measure provides the most useful information in a given context.

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## *Priority Academic Student Skills*

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**the teacher resources page. From the teacher resources page, click on “Accountability and Assessment” to go to the assessment page and then click on “Oklahoma Core Curriculum Tests (OCCT)” on the menu on the left side of the screen.**

# *Priority Academic Student Skills*

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## MATHEMATICS CONTENT STANDARDS

### Grade 7

The following concepts and skills should be mastered by all students upon completion of seventh grade. The **Major Concepts** should be taught in depth using a variety of methods, applications, and connections to other concepts when possible so that all students have accessibility to and an understanding of these concepts.

#### MAJOR CONCEPTS

- **Develop an understanding of proportionality and apply that understanding to solve problems.**
- **Develop an understanding of and fluency with operations on all rational numbers.**
- **Develop and apply strategies for solving linear equations.**

**Standard 1: Algebraic Reasoning: Patterns and Relationships – The student will use number properties and algebraic reasoning to identify, simplify, and solve simple linear equations and inequalities.**

1. Identify, describe, and analyze functional relationships (linear and nonlinear) between two variables (e.g., as the value of  $x$  increases on a table, do the values of  $y$  increase or decrease, identify a positive rate of change on a graph and compare it to a negative rate of change).
2. Write and solve two-step equations with one variable using number sense, the properties of operations, and the properties of equality (e.g.,  $-2x + 4 = -2$ ).
3. Inequalities: Model, write, solve, and graph one-step linear inequalities with one variable.

**Standard 2: Number Sense and Operation – The student will use numbers and number relationships to solve a variety of problems.**

1. Number Sense
  - a. Compare and order positive and negative rational numbers.
  - b. Build and recognize models of perfect squares to find their square roots and estimate the square root of other numbers (e.g., the square root of 12 is between 3 and 4).
  - \*c. Demonstrate the concept of ratio and proportion with models (e.g., similar geometric shapes, scale models).
2. Number Operations

**Note:** Asterisks (\*) have been used to identify standards and objectives that must be assessed by the local school district. All other skills may be assessed by the Oklahoma School Testing Program (OSTP).

## ***Priority Academic Student Skills***

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- a. Solve problems using ratios and proportions.
- b. Solve percent application problems (e.g., discounts, tax, finding the missing value of percent/part/whole).
- c. Simplify numerical expressions with integers, exponents, and parentheses using order of operations.

### **Standard 3: Geometry - The student will apply the properties and relationships of plane geometry in a variety of contexts.**

1. Classify regular and irregular geometric figures including triangles and quadrilaterals according to their sides and angles.
2. Identify and analyze the angle relationships formed by parallel lines cut by a transversal (e.g., alternate interior angles, alternate exterior angles, adjacent, and vertical angles).
3. Construct geometric figures and identify geometric transformations on the rectangular coordinate plane (e.g., rotations, translations, reflections, magnifications).

### **Standard 4: Measurement - The student will use measurement to solve problems in a variety of contexts.**

1. Develop and apply the formulas for perimeter and area of triangles and quadrilaterals to solve problems.
2. Apply the formula for the circumference and area of a circle to solve problems.
3. Find the area and perimeter of composite figures to solve application problems.

### **Standard 5: Data Analysis - The student will use data analysis, probability, and statistics to interpret data in a variety of contexts.**

1. Data Analysis: Compare, translate, and interpret between displays of data (e.g., multiple sets of data on the same graph, data from subsets of the same population, combinations of diagrams, tables, charts, and graphs).
2. Probability: Determine the probability of an event involving “or”, “and”, or “not” (e.g., on a spinner with one blue, two red and two yellow sections, what is the probability of getting a red or a yellow?).
3. Central Tendency: Compute the mean, median, mode, and range for data sets and understand how additional data or outliers in a set may affect the measures of central tendency.

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# *Priority Academic Student Skills*

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## MATHEMATICS CONTENT STANDARDS

### Grade 8

The following concepts and skills should be mastered by all students upon completion of eighth grade. The **Major Concepts** should be taught in depth using a variety of methods, applications, and connections to other concepts when possible so that all students have accessibility to and an understanding of these concepts.

#### **MAJOR CONCEPTS**

- **Analyze and represent linear functions as equations, tables, graphs, and verbal expressions.**
- **Develop an understanding of surface area and volume of three-dimensional shapes and use formulas to find the surface area and volume.**
- **Analyze and summarize data sets in various formats.**

**Standard 1: Algebraic Reasoning: Patterns and Relationships – The student will graph and solve linear equations and inequalities in problem solving situations.**

1. Equations
  - a. Model, write, and solve multi-step linear equations with one variable using a variety of methods to solve application problems.
  - b. Graph and interpret the solution to one- and two-step linear equations on a number line with one variable and on a coordinate plane with two variables.
  - c. Predict the effect on the graph of a linear equation when the slope or y-intercept changes (e.g., make predictions from graphs, identify the slope or y-intercept in the equation  $y = mx + b$  and relate to a graph).
  - d. Apply appropriate formulas to solve problems (e.g.,  $d=rt$ ,  $I=prt$ ).
2. Inequalities: Model, write, solve, and graph one- and two-step linear inequalities with one variable.

**Standard 2: Number Sense and Operation – The student will use numbers and number relationships to solve a variety of problems.**

1. Number Sense: Represent and interpret large numbers and numbers less than one in exponential and scientific notation.
2. Number Operations
  - a. Use the rules of exponents, including integer exponents, to solve problems (e.g.,  $7^2 \cdot 7^3 = 7^5$ ,  $3^{-10} \cdot 3^8 = 3^{-2}$ ).
  - b. Solve problems using scientific notation.

**Note:** Asterisks (\*) have been used to identify standards and objectives that must be assessed by the local school district. All other skills may be assessed by the Oklahoma School Testing Program (OSTP).

## ***Priority Academic Student Skills***

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- c. Simplify numerical expressions with rational numbers, exponents, and parentheses using order of operations.

### **Standard 3: Geometry - The student will use geometric properties to solve problems in a variety of contexts.**

1. Construct models, sketch (from different perspectives), and classify solid figures such as rectangular solids, prisms, cones, cylinders, pyramids, and combined forms.
2. Develop the Pythagorean Theorem and apply the formula to find the length of line segments, the shortest distance between two points on a graph, and the length of an unknown side of a right triangle.

### **Standard 4: Measurement - The student will use measurement to solve problems in a variety of contexts.**

1. Develop and apply formulas to find the surface area and volume of rectangular prisms, triangular prisms, and cylinders (in terms of pi).
2. Apply knowledge of ratio and proportion to solve relationships between similar geometric figures.
3. Find the area of a “region of a region” for simple composite figures and the area of cross sections of regular geometric solids (e.g., area of a rectangular picture frame).

### **Standard 5: Data Analysis - The student will use data analysis, probability, and statistics to interpret data in a variety of contexts.**

1. Data Analysis: Select, analyze and apply data displays in appropriate formats to draw conclusions and solve problems.
- \*2. Probability: Determine how samples are chosen (random, limited, biased) to draw and support conclusions about generalizing a sample to a population (e.g., is the average height of a men’s college basketball team a good representative sample for height predictions?).
3. Central Tendency: Find the measures of central tendency (mean, median, mode, and range) of a set of data and understand why a specific measure provides the most useful information in a given context.

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# *Priority Academic Student Skills*

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## OVERVIEW

### High School

The *Priority Academic Student Skills (PASS)* in mathematics for high school establishes a framework for a curriculum that reflects the needs of all students. Such a curriculum recognizes that they will spend their adult lives in a society increasingly dominated by technology and quantitative methods.

A broadened view of mathematics will include the traditional topics of algebra and geometry but must also include the mathematical processes of problem-solving, communication, reasoning, connections, and representation. Although they are stated separately for emphasis, these process standards should be integrated throughout the high school core curriculum.

A school's curriculum in mathematics should be organized to permit all students to progress as far into the mathematics proposed here as their achievement with the objectives allows. Schools should use this material to create a curriculum most beneficial to their students. Those students planning to continue their mathematics education should study additional advanced mathematics topics such as trigonometry and calculus.

The curriculum is intended to provide a common body of mathematical ideas accessible to all students. It is recognized that students entering high school differ in many ways, including mathematical achievement, but it is believed these differences are best addressed by extensions of the proposed content rather than by deletions.

The increasing role of technology in instruction will alter the teaching and learning of mathematics. Calculators and computers should be integrated throughout the curriculum so that students will concentrate on the problem-solving process as well as the calculations associated with problems.

## PROCESS STANDARDS

### High School

The National Council of Teachers of Mathematics (NCTM) has identified five process standards: Problem Solving, Reasoning and Proof, Communication, Connections, and Representation. Active involvement by students using these processes is likely to broaden mathematical understandings and lead to increasingly sophisticated abilities required to meet mathematical challenges in meaningful ways.

#### **Process Standard 1: Problem Solving**

1. Apply a wide variety of problem-solving strategies (identify a pattern, use equivalent representations) to solve problems from within and outside mathematics.
2. Identify the problem from a described situation, determine the necessary data and apply appropriate problem-solving strategies.

#### **Process Standard 2: Communication**

1. Use mathematical language and symbols to read and write mathematics and to converse with others.

## *Priority Academic Student Skills*

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2. Demonstrate mathematical ideas orally and in writing.
3. Analyze mathematical definitions and discover generalizations through investigations.

### **Process Standard 3: Reasoning**

1. Use various types of logical reasoning in mathematical contexts and real-world situations.
2. Prepare and evaluate suppositions and arguments.
3. Verify conclusions, identify counterexamples, test conjectures, and justify solutions to mathematical problems.
4. Justify mathematical statements through proofs.

### **Process Standard 4: Connections**

1. Link mathematical ideas to the real world (e.g., statistics helps qualify the confidence we can have when drawing conclusions based on a sample).
2. Apply mathematical problem-solving skills to other disciplines.
3. Use mathematics to solve problems encountered in daily life.
4. Relate one area of mathematics to another and to the integrated whole (e.g., connect equivalent representations to corresponding problem situations or mathematical concepts).

### **Process Standard 5: Representation**

1. Use algebraic, graphic, and numeric representations to model and interpret mathematical and real world situations.
2. Use a variety of mathematical representations as tools for organizing, recording, and communicating mathematical ideas (e.g., mathematical models, tables, graphs, spreadsheets).
3. Develop a variety of mathematical representations that can be used flexibly and appropriately.

# *Priority Academic Student Skills*

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## MATHEMATICS CONTENT STANDARDS

### Algebra I (Updated August 2006)

The following skills are required of all students completing Algebra I. **Major Concepts** should be taught in depth using a variety of methods and applications (concrete to the abstract). **Maintenance Concepts** have been taught previously and are a necessary foundation for this course. The major concepts are considered minimal exit skills and districts are strongly encouraged to exceed these skills when building an Algebra I curriculum. Visual and physical models, calculators, and other technologies are recommended when appropriate and can enhance both instruction and assessment.

#### MAJOR CONCEPTS

**Number Sense and Algebraic Operations -  
Polynomials, Exponents, Expressions**

**Relations and Functions -  
Linear Functions & Slope  
Formulas**

**Data Analysis, Statistics and Probability-  
Tables, Graphs, Charts, Scatter Plots**

#### MAINTENANCE CONCEPTS

Number Sense & Algebraic Reasoning-  
Equations, Inequalities, Exponents,  
Rational Numbers

Geometry  
Volume, Surface Area, Ratio,  
Proportion, Formulas

Data Analysis and Statistics -  
Graphical Representations,  
Measures of Central Tendency

**Standard 1: Number Sense and Algebraic Operations - The student will use expressions and equations to model number relationships.**

1. Equations and Formulas
  - a. Translate word phrases and sentences into expressions and equations and vice versa.
  - b. Solve literal equations involving several variables for one variable in terms of the others.
  - c. Use the formulas from measurable attributes of geometric models (perimeter, circumference, area and volume), science, and statistics to solve problems within an algebraic context.
  - d. Solve two-step and three-step problems using concepts such as rules of exponents, rate, distance, ratio and proportion, and percent.
2. Expressions
  - a. Simplify and evaluate linear, absolute value, rational and radical expressions.
  - b. Simplify polynomials by adding, subtracting or multiplying.
  - c. Factor polynomial expressions.

**Note:** Asterisks (\*) have been used to identify standards and objectives that must be assessed by the local school district. All other skills may be assessed by the Oklahoma School Testing Program (OSTP).

## *Priority Academic Student Skills*

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**Standard 2: Relations and Functions - The student will use relations and functions to model number relationships.**

1. Relations and Functions
  - a. Distinguish between linear and nonlinear data.
  - b. Distinguish between relations and functions.
  - c. Identify dependent and independent variables, domain and range.
  - d. Evaluate a function using tables, equations or graphs.
2. Linear Equations and Graphs
  - a. Solve linear equations by graphing or using properties of equality.
  - b. Recognize the parent graph of the functions  $y = k$ ,  $y = x$ ,  $y = |x|$ , and predict the effects of transformations on the parent graph.
  - c. Slope
    - I. Calculate the slope of a line using a graph, an equation, two points or a set of data points.
    - II. Use the slope to differentiate between lines that are parallel, perpendicular, horizontal, or vertical.
    - III. Interpret the slope and intercepts within the context of everyday life (e.g., telephone charges based on base rate [y-intercept] plus rate per minute [slope]).
  - d. Develop the equation of a line and graph linear relationships given the following: slope and y-intercept, slope and one point on the line, two points on the line, x-intercept and y-intercept, a set of data points.
  - e. Match equations to a graph, table, or situation and vice versa.
3. Linear Inequalities and Graphs
  - a. Solve linear inequalities by graphing or using properties of inequalities.
  - b. Match inequalities (with 1 or 2 variables) to a graph, table, or situation and vice versa.
4. Solve a system of linear equations by graphing, substitution or elimination.
- \* 5. Nonlinear Functions
  - a. Match exponential and quadratic functions to a table, graph or situation and vice versa.
  - b. Solve quadratic equations by graphing, factoring, or using the quadratic formula.

## *Priority Academic Student Skills*

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**Standard 3: Data Analysis, Probability and Statistics - The student will use data analysis, probability and statistics to formulate and justify predictions from a set of data.**

1. Data Analysis
  - a. Translate from one representation of data to another and understand that the data can be represented using a variety of tables, graphs, or symbols and that different modes of representation often convey different messages.
  - b. Make valid inferences, predictions, and/or arguments based on data from graphs, tables, and charts.
  - c. Solve two-step and three-step problems using concepts such as probability and measures of central tendency.
2. Collect data involving two variables and display on a scatter plot; interpret results using a linear model/equation and identify whether the model/equation is a line best fit for the data.

# *Priority Academic Student Skills*

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## MATHEMATICS CONTENT STANDARDS

### Geometry (Updated February 2007)

The following skills are required of all students completing Geometry. **Major Concepts** should be taught in depth using a variety of methods and applications (concrete to the abstract). **Maintenance Concepts** have been taught previously and are a necessary foundation for this course. The major concepts are considered minimal exit skills and districts are strongly encouraged to exceed these skills when building a Geometry curriculum. Visual and physical models, calculators, and other technologies are recommended when appropriate and can enhance both instruction and assessment.

#### MAJOR CONCEPTS

Logical Reasoning  
Properties  
Coordinate Geometry  
Triangles

#### MAINTENANCE CONCEPTS

Ratios, Proportions  
Perimeter, Area, Surface Area, Volume  
Equations  
Formulas

**Standard 1: Logical Reasoning - The student will use deductive and inductive reasoning to solve problems.**

1. Identify and use logical reasoning skills (inductive and deductive) to make and test conjectures, formulate counter examples, and follow logical arguments.
2. State, use, and examine the validity of the converse, inverse, and contrapositive of “if-then” statements.
- \* 3. Compare the properties of Euclidean geometry to non-Euclidean geometries (for example, elliptical geometry, as shown on the surface of a globe, does not uphold the parallel postulate).

**Standard 2: Properties of 2-Dimensional Figures - The student will use the properties and formulas of geometric figures to solve problems.**

- \* 1. Use geometric tools (for example, protractor, compass, straight edge) to construct a variety of figures.
2. Line and Angle Relationships
  - a. Use the angle relationships formed by parallel lines cut by a transversal to solve problems.
  - b. Use the angle relationships formed by two lines cut by a transversal to determine if the two lines are parallel and verify, using algebraic and deductive proofs.
  - c. Use relationships between pairs of angles (for example, adjacent, complementary, vertical) to solve problems.

**Note:** Asterisks (\*) have been used to identify standards and objectives that must be assessed by the local school district. All other skills may be assessed by the Oklahoma School Testing Program (OSTP).

## *Priority Academic Student Skills*

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3. Polygons and Other Plane Figures
  - a. Identify, describe, and analyze polygons (for example, convex, concave, regular, pentagonal, hexagonal, n-gonal).
  - b. Apply the interior and exterior angle sum of convex polygons to solve problems, and verify using algebraic and deductive proofs.
  - c. Develop and apply the properties of quadrilaterals to solve problems (for example, rectangles, parallelograms, rhombi, trapezoids, kites).
  - d. Use properties of 2-dimensional figures and side length, perimeter or circumference, and area to determine unknown values and correctly identify the appropriate unit of measure of each.
4. Similarity
  - a. Determine and verify the relationships of similarity of triangles, using algebraic and deductive proofs.
  - b. Use ratios of similar 2-dimensional figures to determine unknown values, such as angles, side lengths, perimeter or circumference, and area.
5. Congruence
  - a. Determine and verify the relationships of congruency of triangles, using algebraic and deductive proofs.
  - b. Use the relationships of congruency of 2-dimensional figures to determine unknown values, such as angles, side lengths, perimeter or circumference, and area.
6. Circles
  - a. Find angle measures and arc measures related to circles.
  - b. Find angle measures and segment lengths using the relationships among radii, chords, secants, and tangents of a circle.

**Standard 3: Triangles and Trigonometric Ratios - The student will use the properties of right triangles and trigonometric ratios to solve problems.**

1. Use the Pythagorean Theorem and its converse to find missing side lengths and to determine acute, right, and obtuse triangles, and verify using algebraic and deductive proofs.
2. Apply the 45-45-90 and 30-60-90 right triangle relationships to solve problems, and verify using algebraic and deductive proofs.
3. Express the trigonometric functions as ratios and use sine, cosine, and tangent ratios to solve real-world problems.
- \* 4. Use the trigonometric ratios to find the area of a triangle.

## *Priority Academic Student Skills*

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**Standard 4: Properties of 3-Dimensional Figures - The student will use the properties and formulas of geometric figures to solve problems.**

1. Polyhedra and Other Solids
  - a. Identify, describe, and analyze polyhedra (for example, regular, decahedral).
  - b. Use properties of 3-dimensional figures; side lengths, perimeter or circumference, and area of a face; and volume, lateral area, and surface area to determine unknown values and correctly identify the appropriate unit of measure of each.
2. Similarity: Use ratios of similar 3-dimensional figures to determine unknown values, such as angles, side lengths, perimeter or circumference of a face, area of a face, and volume.
3. Create a model of a 3-dimensional figure from a 2-dimensional drawing and make a 2-dimensional representation of a 3-dimensional object (for example, nets, blueprints, perspective drawings).

**Standard 5: Coordinate Geometry - The student will solve problems with geometric figures in the coordinate plane.**

1. Find the distance between two points; the midpoint of a segment; and calculate the slopes of parallel, perpendicular, horizontal, and vertical lines.
2. Properties of Figures
  - a. Given a set of points determine the type of figure formed based on its properties.
  - b. Use transformations (reflection, rotation, translation) on geometric figures to solve problems within coordinate geometry.



# *Priority Academic Student Skills*

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## MATHEMATICS CONTENT STANDARDS

### Algebra II (Updated February 2007)

The following skills are required of all students completing Algebra II. **Major Concepts** should be taught in depth using a variety of methods and applications (concrete to the abstract). **Maintenance Concepts** have been taught previously and are a necessary foundation for this course. The major concepts are considered minimal exit skills and districts are strongly encouraged to exceed these skills when building an Algebra II curriculum. Visual and physical models, calculators, and other technologies are recommended when appropriate and can enhance both instruction and assessment.

#### MAJOR CONCEPTS

**Number Systems and Algebraic Operations –  
Real and Complex Numbers**  
**Functions and Relations -  
Quadratic, Polynomial, Exponential,  
Logarithmic, Rational**  
**Data Analysis, Statistics, and Probability  
Relationships, Measures of Central  
Tendency and Variability, Sequences and  
Series**

#### MAINTENANCE CONCEPTS

Polynomials  
Exponents  
Expressions  
Slope  
Data Displays

**Standard 1: Number Systems and Algebraic Operations - The student will perform operations with rational, radical, and polynomial expressions, as well as expressions involving complex numbers.**

1. Rational Exponents
  - a. Convert expressions from radical notations to rational exponents and vice versa.
  - b. Add, subtract, multiply, divide, and simplify radical expressions and expressions containing rational exponents.
2. Polynomial and Rational Expressions
  - a. Divide polynomial expressions by lower degree polynomials.
  - b. Add, subtract, multiply, divide, and simplify rational expressions, including complex fractions.
3. Complex Numbers
  - \* a. Recognize that to solve certain problems and equations, number systems need to be extended from real numbers to complex numbers.

**Note:** Asterisks (\*) have been used to identify standards and objectives that must be assessed by the local school district. All other skills may be assessed by the Oklahoma School Testing Program (OSTP).

## *Priority Academic Student Skills*

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- b. Add, subtract, multiply, divide, and simplify expressions involving complex numbers.

**Standard 2: Relations and Functions - The student will use the relationships among the solution of an equation, zero of a function, x-intercepts of a graph, and factors of a polynomial expression to solve problems involving relations and functions.**

1. Functions and Function Notation
  - a. Recognize the parent graphs of polynomial, exponential, radical, quadratic, and logarithmic functions and predict the effects of transformations on the parent graphs, using various methods and tools which may include graphing calculators.
  - b. Add, subtract, multiply, and divide functions using function notation.
  - c. Combine functions by composition.
  - d. Use algebraic, interval, and set notations to specify the domain and range of functions of various types.
  - e. Find and graph the inverse of a function, if it exists.
2. Systems of Equations
  - a. Model a situation that can be described by a system of equations or inequalities and use the model to answer questions about the situation.
  - b. Solve systems of linear equations and inequalities using various methods and tools which may include substitution, elimination, matrices, graphing, and graphing calculators.
  - \*c. Use either one quadratic equation and one linear equation or two quadratic equations to solve problems.
3. Quadratic Equations and Functions
  - a. Solve quadratic equations by graphing, factoring, completing the square and quadratic formula.
  - b. Graph a quadratic function and identify the x- and y-intercepts and maximum or minimum value, using various methods and tools which may include a graphing calculator.
  - c. Model a situation that can be described by a quadratic function and use the model to answer questions about the situation.

## *Priority Academic Student Skills*

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4. Identify, graph, and write the equations of the conic sections (circle, ellipse, parabola, and hyperbola).
5. Exponential and Logarithmic Functions
  - a. Graph exponential and logarithmic functions.
  - b. Apply the inverse relationship between exponential and logarithmic functions to convert from one form to another.
  - c. Model a situation that can be described by an exponential or logarithmic function and use the model to answer questions about the situation.
6. Polynomial Equations and Functions
  - a. Solve polynomial equations using various methods and tools which may include factoring and synthetic division.
  - b. Sketch the graph of a polynomial function.
  - c. Given the graph of a polynomial function, identify the x- and y-intercepts, relative maximums and relative minimums, using various methods and tools which may include a graphing calculator.
  - d. Model a situation that can be described by a polynomial function and use the model to answer questions about the situation.
7. Rational Equations and Functions
  - a. Solve rational equations.
  - b. Sketch the graph of a rational function.
  - c. Given the graph of a rational function, identify the x- and y-intercepts, vertical asymptotes, using various methods and tools which may include a graphing calculator.
  - d. Model a situation that can be described by a rational function and use the model to answer questions about the situation.

**Standard 3: Data Analysis and Statistics - The student will use data analysis and statistics to formulate and justify predictions from a set of data.**

1. Analysis of Collected Data Involving Two Variables
  - a. Interpret data on a scatter plot using a linear, exponential, or quadratic model/equation.

## *Priority Academic Student Skills*

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- b. Identify whether the model/equation is a curve of best fit for the data, using various methods and tools which may include a graphing calculator.
- \* 2. Measures of Central Tendency and Variability
- a. Analyze and synthesize data from a sample using appropriate measures of central tendency (mean, median, mode, weighted average).
  - b. Analyze and synthesize data from a sample using appropriate measures of variability (range, variance, standard deviation).
  - c. Use the characteristics of the Gaussian normal distribution (bell-shaped curve) to solve problems.
  - d. Identify how given outliers affect representations of data.
3. Identify and use arithmetic and geometric sequences and series to solve problems.

# *Priority Academic Student Skills*

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## GLOSSARY

**addend** - in the addition problem  $3 + 2 + 6 = 11$ , the addends are 3, 2, and 6.

**algorithm** - step-by-step procedure for solving a problem.

**analog time** - time displayed on a timepiece having hour and minute hands.

**array** - (rectangular) an orderly arrangement of objects into a rectangular configuration (e.g., take six tiles and arrange two long and three wide to form a rectangle).

**attribute** - characteristics (e.g., size, shape, color, weight).

**combinations** - a selection of objects without regard to order.

**complementary angles** - two angles whose measure have a sum of 90 degrees.

**complex numbers** - numbers of the form  $a + bi$ , where  $a$  and  $b$  are real numbers and  $i$  equals the square root of  $-1$ .

**composite numbers** - any positive integer exactly divisible by one or more positive integers other than itself and 1.

**congruent** - geometric figures having exactly the same size and shape.

**conic sections** - circles, parabolas, ellipses, and hyperbolas which can all be represented by passing a plane through a hollow double cone.

**conjecture** - a statement believed to be true but not proved.

**cosine** - in a right triangle, the cosine of an acute angle is the ratio of the length of the leg adjacent to the angle to the length of the hypotenuse.

**dependent events** - events that influence each other. If one of the events occurs, it changes the probability of the other event.

**domain of a relation** - the set of all the first elements or x-coordinates of a relation.

**exponential function** - an exponential function with base  $b$  is defined by  $y = b^x$ , where  $b > 0$  and  $b$  is not equal to 1.

**expression** - a mathematical phrase that can include operations, numerals and variables. In algebraic terms:  $2m + 3x$ ; in numeric terms:  $2.4 - 1.37$ .

**Fibonacci sequence** - the sequence of numbers, 1, 1, 2, 3, 5, 8, 13, 21, . . . where each number, except the first two, is the sum of the two preceding numbers.

**function** - a relation in which each element of the domain is paired with exactly one element of the range.

**function machine** - an input/output box (often made with milk cartons, boxes, or drawn on the board) to show one number entering and a different number exiting. Students guess the rule that produced the second number (e.g., enter 3, exit 5, rule: add 2).

## *Priority Academic Student Skills*

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**histogram** - a bar graph of a frequency distribution.

**imaginary number** - any complex number,  $a + bi$ , for which  $a = 0$  and  $b \neq 0$ .

**independent events** - events that do not influence one another. Each event occurs without changing the probability of the other event.

**integers** - . . . -2, -1, 0, 1, 2, . . .

**intercepts (x & y)** - the x (y)-coordinate of the point where a graph intercepts the x (y)- axis.

**inverse operations** - operations that undo each other (e.g., addition and subtraction are inverse operations; multiplication and division are inverse operations).

**irrational numbers** - nonterminating, nonrepeating decimals (e.g., square root of 2, pi).

**logarithmic functions** - logarithmic function with base  $b$  is the inverse of the exponential function, and is defined by  $x = \log_b y$  ( $y > 0$ ,  $b > 0$ ,  $b \neq 1$ ).

**manipulatives** - concrete materials (e.g., buttons, beans, egg and milk cartons, counters, attribute and pattern blocks, interlocking cubes, base-10 blocks, geometric models, geoboards, fractions pieces, rulers, balances, spinners, dot paper) to use in mathematical calculations.

**mean** - in a set of  $n$  numbers, the sum of the numbers divided by  $n$ .

**median** - the middle number in the set, or the mean of the two middle numbers, when the numbers are arranged in order from least to greatest.

**mode** - a number in a set of data that occurs most often.

**multiple** - a number that is the product of a given integer and another integer (e.g., 6 and 9 are multiples of 3).

**natural numbers** - (counting numbers) 1, 2, 3, 4, . . .

**nonstandard measurement** - a measurement determined by the use of nonstandard units like hands, paper clips, beans, cotton balls, etc.

**number sense** - involves the understanding of number size (relative magnitude), number representations, number operations, referents for quantities and measurements used in everyday situations, etc.

**operation** - addition, subtraction, multiplication, division, etc.

**order of operations** - rules for evaluating an expression: work first within parentheses; then calculate all powers, from left to right; then do multiplications or divisions, from left to right; then do additions and subtractions, from left to right.

**ordinal** - a number that is used to tell order (e.g., first, fifth).

**prime number** - an integer greater than one whose only positive factors are 1 and itself (e.g., 2, 3, 5, 7, 11, 13 . . .).

**probability** - the study and measure of the likelihood of an event happening.

## Priority Academic Student Skills

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**properties of arithmetic** - for all real numbers  $a$ ,  $b$  and  $c$ :

commutative property:  $a + b = b + a$  and  $a \cdot b = b \cdot a$

associative property:  $(a + b) + c = a + (b + c)$  and  $(a \cdot b) \cdot c = a \cdot (b \cdot c)$

distributive property:  $a(b + c) = (a \cdot b) + (a \cdot c)$

identity property:  $a + 0 = a$  and  $a \cdot 1 = a$

inverse property:  $a + (-a) = 0$  and  $a \cdot \frac{1}{a} = 1$

**proportion** - a statement that ratios are equal.

**quadrants** - the four regions formed by the axes in a coordinate plane.

**quadratic equation** - an equation of the form  $ax^2 + bx + c = 0$ , where  $a$ ,  $b$  and  $c$  are real numbers and  $a$  is not equal to 0.

**quadratic formula** - if  $ax^2 + bx + c = 0$ , where  $a$ ,  $b$  and  $c$  are real numbers and  $a$  is not equal to

$$0, \text{ then } x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a} .$$

**range of a relation** - the set of all the second elements or  $y$ -coordinates of a relation is called the range.

**ratio** - the comparison of two quantities by division.

**rational numbers** - quotients of integers (commonly called fractions - includes both positive and negative numbers).

**real numbers** - the set of all rational and irrational numbers.

**recursive patterns** - patterns in which each number is found from the previous number by repeating a process (e.g., Fibonacci numbers).

**relation** - a set of one or more pairs of numbers.

**relative magnitude** - the size of an object or number compared to other objects and numbers.

**scatter plot** - a dot or point graph of data.

**sequence** - a set of numbers arranged in a pattern.

**sine** - in a right triangle, the sine of an acute angle is the ratio of the length of the leg opposite the angle to the length of the hypotenuse.

**slope of a line** - the ratio of the change in  $y$  to the corresponding change in  $x$ . For any

$$\text{two points } (x_1, y_1) \text{ and } (x_2, y_2), m = \frac{(y_2 - y_1)}{(x_2 - x_1)} .$$

## *Priority Academic Student Skills*

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**spatial sense** - involves building and manipulating mental representations of 2- and 3-dimensional objects and ideas.

**standard deviation** - measures how much each value in the data differs from the mean of the data.

**statistics** - the study of data.

**stem-and-leaf plot** - a frequency distribution made by arranging data in the following way (e.g., student scores on a test were 96, 87, 77, 93, 85, 85, and 75 would be displayed as

```
9 | 6, 3
8 | 7, 5, 5
7 | 7, 5
```

**supplementary angles** - two angles whose measures have a sum of 180 degrees.

**supposition** - (act of supposing) making a statement or assumption without proof.

**tangent** - in a right triangle, the tangent is the ratio of the length of the leg opposite the angle to the length of the leg adjacent to the angle.

**transformation** - motion of a geometric figure (rotation [turn], translation [slide], and reflection [flip]).

**whole numbers** - 0, 1, 2, 3, 4, . . .



# Priority Academic Student Skills

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## **SCIENCE OVERVIEW ORGANIZATION**

The Priority Academic Student Skills (PASS) are organized by Science Process and Inquiry Standards and Content Standards which include Physical Science, Life Science, and Earth/Space Science. They are arranged by grade level at Grades 1-8, and by course subject area at the high school level. Each standard is followed by two or more objectives to accomplish each standard. Students should be provided with science experiences at each grade level from all areas of the content standards. This integrated approach will provide students with a coordinated, coherent understanding of the necessary skills and knowledge of scientifically literate citizens.

The Oklahoma State Testing Program assesses the Science *Priority Academic Student Skills (PASS)* with a 5<sup>th</sup> and 8<sup>th</sup> grade criterion-referenced test and a Biology I End-of-Instruction test. All of these state level assessments are based on the standards in this document.

The objectives presented in the “Science Processes and Inquiry” standards are included at all grade levels because the understandings and abilities associated with these concepts need to be developed throughout a student’s educational experience.

The content standard areas (physical, life, earth/space) are designed to facilitate conceptual development by building on the content knowledge introduced at the Pre-Kindergarten level. Because each of the content standards subsumes the knowledge and skills of the other standards, they are designed to be used as a whole. Although material can be added to the content standards, using only a portion of the standards will leave gaps in the scientific understanding expected of students.

## **SCIENCE STANDARDS Grades 1-12**

The science framework presented in this outline is what students should know, understand, and be able to do in the natural sciences. Students combine process and knowledge as they use scientific reasoning and critical thinking to develop their understanding of science. Inquiry builds conceptual bridges between process and scientific knowledge. Relevant use of developmentally appropriate technology facilitates the inquiry process.

The attainment of scientific literacy is the result of a sequential curriculum that is dependent on quality science teaching at each grade level beginning in prekindergarten. Quality science teaching requires direct, inquiry-oriented learning experiences that emphasize the processes of science and major science concepts. Consistent with national standards, fewer concepts in physical, life and earth/space sciences are explored while more emphasis is placed on in-depth understanding. The following standards provide a framework to achieve the above goals.

The science standards are not a scope and sequence or a district curriculum guide. They provide a framework for schools to develop an aligned science curriculum and for teachers to develop their own classroom lessons. The science standards in this document were developed

## Priority Academic Student Skills

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based on the *National Science Education Standards* by the National Research Council (NRC), the *Benchmarks for Scientific Literacy by the American Association* for the Advancement of Science (AAAS), and the *Science Frameworks* by the National Association for Educational Progress (NAEP). The United States has established a goal for all students to achieve scientific literacy. These national publications, developed by science and education experts, will enable the nation and the state of Oklahoma to meet this goal.

### NOTE:

Asterisks (\*) have been used to identify standards and objectives that must be assessed by the local school district. All other skills may be assessed by the Oklahoma School Testing Program (OSTP).

Book Icons (📖) identify Information Literacy skills. Students are best served when these are taught in collaboration and cooperation between the classroom teacher and the library media specialist.

Use of term i.e. means “in exactness”; use of the term e.g. means “example given”.

OAC 210:15-3-70—210:15-3-82

Approved by the Oklahoma State Board of Education, March 24, 2011.

### SCIENCE

# Priority Academic Student Skills

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## Grade 1

### Standards for Inquiry, Physical, Life, and Earth/Space Science

The *Priority Academic Students Skills (PASS)* should be taught by investigating broad concepts, and principles of major themes in Physical, Life, and Earth/Space Sciences.

### SCIENCE PROCESSES AND INQUIRY

#### Grade 1

**Process Standard 1: Observe and Measure – Observing is the first action taken by the learner to acquire new information about an object, organism, or event. Opportunities for observation are developed through the use of a variety of scientific tools. Measurement allows observations to be quantified. The student will accomplish these objectives to meet this process standard.**

- \*1. Observe and measure objects, organisms and/or events using developmentally appropriate nonstandard units of measurement (e.g., hand, paper clip, book); and International System of Units (SI) (i.e., meters, centimeters, and degrees Celsius).
2. Compare and contrast similar and/or different characteristics in a given set of simple objects, familiar organisms and/or observable events.

**Process Standard 2: Classify – classifying establishes order. Objects, organisms, and events are classified based on similarities, differences, and interrelationships. The student will accomplish these objectives to meet this process standard.**

1. Classify a set of simple objects, familiar organisms, and/or observable events by observable properties.
2. Arrange simple objects, familiar organisms, and/or observable events in a serial order (e.g., least to greatest, tallest to shortest).

**Process Standard 3: Experiment and Inquiry - Experimenting is a method of discovering information. It requires making observations and measurements to test ideas. Inquiry can be defined as the skills necessary to carry out the process of scientific or systemic thinking. In order for inquiry to occur, students must have the opportunity to ask a question, formulate a procedure, and observe phenomena. The student will accomplish these objectives to meet this process standard.**

- \*1. Ask a question about objects, organisms, or events in the environment.

## Priority Academic Student Skills

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- \*2. Plan and conduct a simple investigation.
- \*3. Employ simple equipment and tools such as magnifiers, thermometers, and rulers to gather data.
- 4. Recognize potential hazards and practice safety procedures in all science activities.

**Process Standard 4: Interpret and Communicate – Interpreting is a process of recognizing patterns in collected data by making inferences, predictions, or conclusions. Communicating is the process of describing, recording, and reporting experimental procedures and results to others. Communication may be oral, written, or mathematical and includes organizing ideas, using appropriate vocabulary, graphs, and other visual representations. The student will accomplish these objectives to meet this process standard.**

- 1. Interpret pictures, simple bar graphs, and/or tables.
- 2. Recognize and describe patterns, then make predictions based on patterns. 📖
- \*3. Communicate the results of a simple investigation using drawings, tables, graphs, and/or written and oral language. 📖

### PHYSICAL SCIENCE

#### Grade 1

**Standard 1: Properties of Objects and Materials – Characteristics of objects can be described using physical properties such as size, shape, color, or texture. The student will engage in investigations that integrate the process standards and lead to the discovery of the following objectives:**

- 1. Objects have properties that can be observed, described, and measured.
- 2. Using the five senses, objects can be grouped or ordered by physical properties.
- 3. Water can be a liquid or a solid, and can be made to go back and forth from one form to the other.

### LIFE SCIENCE

# Priority Academic Student Skills

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## Grade 1

**Standard 2: Characteristics and Basic Needs of Organisms – All living things have structures that enable them to function in unique and specific ways to obtain food, reproduce, and survive. The student will engage in investigations that integrate the process standards and lead to the discovery of the following objectives:**

1. Plants and animals need to take in air, water, and food. In addition, plants need light.
2. Scientists use the five senses and tools (e.g., magnifiers and rulers) to gather information, such as size and shape about living things.

## EARTH/SPACE SCIENCE

### Grade 1

**Standard 3: Changes of Earth and Sky – Observe natural changes of all kinds such as the movement of the sun and variable changes like the weather. The student will engage in investigations that integrate the process standards and lead to the discovery of the following objectives:**

1. The sun warms the land, air, and water.
2. Weather changes from day to day and over the seasons. Weather can be observed by measuring temperature and describing cloud formations.

## SCIENCE

# Priority Academic Student Skills

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## Grade 2

### Standards for Inquiry, Physical, Life, and Earth/Space Science

The *Priority Academic student Skills (PASS)* should be taught by investigating broad concepts, and principles of major themes in Physical, Life, and Earth/Space Sciences.

### SCIENCE PROCESSES AND INQUIRY

#### Grade 2

**Process Standard 1: Observe and Measure – Observing is the first action taken by the learner to acquire new information about an object, organism, or event. Opportunities for observation are developed through the use of a variety of scientific tools. Measurement allows observations to be quantified. The student will accomplish these objectives to meet this process standard.**

1. Observe and measure objects, organisms, and/or events using developmentally appropriate standard units of measurement (e.g., inches, feet, yard, degrees Fahrenheit) and the International System of Units (SI) (i.e., meters, centimeters, grams, and degrees Celsius).
2. Compare and contrast similar and/or different characteristics in a given set of simple objects, familiar organisms and/or observable events.

**Process Standard 2: Classify – Classifying establishes order. Objects, organisms, and events are classified based on similarities, differences, and interrelationships. The student will accomplish these objectives to meet this process standard.**

1. Classify a set of simple objects, familiar organisms, and/or observable events by observable properties (e.g., graphic organizers, t-charts, tables, and Venn diagrams).
2. Arrange simple objects, familiar organisms, and/or observable events in a serial order (e.g., least to greatest, tallest to shortest).

**Process Standard 3: Experiment and Inquiry – Experimenting is a method of discovering information. It requires making observations and measurements to test ideas. Inquiry can be defined as the skills necessary to carry out the process of scientific or systemic thinking. In order for inquiry to occur, students must have the opportunity to ask a question, formulate a procedure, and observe phenomena. The student will accomplish these objectives to meet this process standard.**

- \*1. Ask a question about objects, organisms, or events in the environment. 📖

## Priority Academic Student Skills

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- \*2. Plan and conduct a simple investigation.
- \*3. Employ simple equipment and tools such as magnifiers, thermometers, and rulers to gather data.
- 4. Recognize potential hazards and practice safety procedures in all science activities.

**Process Standard 4: Interpret and Communicate – Interpreting is the process of recognizing patterns in collected data by making inferences, predictions, or conclusions. Communicating is the process of describing, recording, and reporting experimental procedures and results to others. Communication may be oral, written, or mathematical and includes organizing ideas, using appropriate vocabulary, graphs, and other visual representations. The student will accomplish these objectives to meet this process standard.**

- 1. Interpret pictures, simple bar graphs, and/or tables. 📖
- 2. Recognize and describe patterns, then make predictions based on patterns. 📖
- \*3. Communicate the results of a simple investigation using drawings, tables, graphs, and/or written and oral language. 📖

### PHYSICAL SCIENCE

#### Grade 2

**Standard 1: Properties and Interactions of Objects and Materials – characteristics of objects can be described using physical properties such as size, shape, color, texture, or magnetism. Interactions change the position and motion of objects. The student will engage in investigations that integrate the process standards and lead to the discovery of the following objectives:**

- 1. Objects can be described in terms of materials of which they are made. Physical properties of materials can be changed by tearing, sifting, sanding, or pounding.
- 2. Motion and interaction of objects can be observed in toys and playground activities.
- 3. Magnets attract and repel each other and certain other materials. Magnetic force passes through materials such as paper, glass, and water.

### LIFE SCIENCE

# Priority Academic Student Skills

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## Grade 2

**Standard 2: Life Cycles and Organisms – Life cycles represent the stages an organism passes through from its own birth to the birth of the next generation. The student will engage in investigations that integrate the process standards and lead to the discovery of the following objectives:**

1. Plants and animals have life cycles that include developing into adults, reproducing, and eventually dying. The details of this life cycle are different for different organisms.
2. Plants and animals often have characteristics similar to their parents.

## EARTH/SPACE SCIENCE

### Grade 2

**Standard 3: Properties and Changes of Earth and Sky – Earth materials consist of rocks, soils, water, and air. The sun appears to move across sky in the same way every day. The student will engage in investigations that integrate the process standards and lead to the discovery of the following objectives:**

1. Earth materials have different properties and serve as natural resources that sustain plant and animal life.
2. The size and shape of shadows change at different times of the day.

## SCIENCE



# Priority Academic Student Skills

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## Grade 3

### Standards for Inquiry, Physical, Life and Earth/Space Science

The *Priority Academic Student Skills (PASS)* should be taught by investigating broad concepts, and principles of major themes in Physical, Life, and Earth/Space Sciences.

### SCIENCE PROCESSES AND INQUIRY

#### Grade 3

**Process Standard 1: Observe and Measure – Observing is the first action taken by the learner to acquire new information about an object, organism, or event. Opportunities for observation are developed through the use of a variety of scientific tools. Measurement allows observations to be quantified. The student will accomplish these objectives to meet this process standard.**

1. Observe and measure objects, organisms, and/or events using developmentally appropriate International System of Units (SI) (i.e., meters, centimeters, grams, and degrees Celsius).
2. Compare and contrast similar and/or different characteristics in a given set of simple objects, familiar organisms, and/or observable events.

**Process Standard 2: Classify – Classifying establishes order. Objects, organisms, and events are classified based on similarities, differences, and interrelationships. The student will accomplish these objectives to meet this process standard.**

1. Classify a set of simple objects, familiar organisms, and/or observable events by observable properties (e.g., graphic organizers, t-charts, tables, and Venn diagrams).
2. Arrange simple objects, familiar organisms, and/or observable events in a serial order (e.g., least to greatest, order of steps, and smallest to largest).

**Process Standard 3: Experiment and Inquiry – Experimenting is a method of discovering information. It requires making observations and measurements to test ideas. Inquiry can be defined as the skills necessary to carry out the process of scientific or systemic thinking. In order for inquiry to occur, students must have the opportunity to ask a question, formulate a procedure, and observe phenomena. The student will accomplish these objectives to meet this process standard.**

- \*1. Ask a question about objects, organisms, or events in the environment. 

## Priority Academic Student Skills

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- \*2. Plan and conduct a simple investigation.
- \*3. Employ simple equipment and tools such as magnifiers, thermometers, and rulers to gather data.
- 4. Recognize potential hazards and practice safety procedures in all science activities.

**Process Standard 4: Interpret and Communicate – Interpreting is the process of recognizing patterns in collected data by making inferences, predictions, or conclusions. Communicating is the process of describing, recording, and reporting experimental procedures and results to others. Communication may be oral, written, or mathematical and includes organizing ideas, using appropriate vocabulary, graphs, other visual representations, and mathematical equations. The student will accomplish these objectives to meet this process standard.**

- 1. Interpret tables, pictorial, and/or simple bar graphs. 📖
- 2. Recognize and describe patterns, then make predictions based on patterns. 📖
- \*3. Communicate the results of a simple investigation using drawings, tables, graphs, and/or written and oral language. 📖

### PHYSICAL SCIENCE

#### Grade 3

**Standard 1: Properties of Objects and Materials – Describe characteristics of objects based on physical properties such as size, shape, color, or texture. Vibration of materials causes sound. The student will engage in investigations that integrate the process standards and lead to the discovery of the following objectives:**

- 1. Objects can be described in terms of the materials of which they are made. Mixtures and solutions can be separated (i.e., sand and marbles, salt and water).
- 2. Sound is produced by vibrations (i.e., pitch and loudness).
- 3. Sound travels through air, water, and/or solids.

### LIFE SCIENCE

# Priority Academic Student Skills

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## Grade 3

**Standard 2: Characteristics and Basic Needs of Organisms and Environments – All living things have structures that enable them to function in unique and specific ways to obtain food, reproduce, and survive. The student will engage in investigations that integrate the process standards and lead to the discovery of the following objectives:**

1. Plants and animals have features (i.e., breathing structures, limbs, skin covering, seed dispersal, roots, stems, and leaves) that help them live in different environments such as air, water, or land.
2. Each plant or animal has different structures that serve different functions in growth and survival (i.e., the way it moves, type of food it needs, and where it lives).
3. All animals depend on plants. Some animals eat plants for food. Other animals consume animals that eat the plants.
  - a. The primary source of energy in a food chain is the sun.
  - b. Animals can be classified by the type of food they eat.

## EARTH/SPACE SCIENCE

### Grade 3

**Standard 3: Properties of Earth Materials – Earth materials consist of rock, soils, water, and air. The student will engage in investigations that integrate the process standards and lead to the discovery of the following objectives:**

1. Rocks and minerals have similarities and differences (i.e., size of particles, color pattern, and layering).
2. Soils have properties of color and texture, capacity to retain water, and ability to support the growth of many kinds of plants and animals, including those in our food supply.
3. Earth exerts a force called gravity which attracts objects, pulling them toward Earth's center.

## SCIENCE

# Priority Academic Student Skills

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## Grade 4

### Standards for Inquiry, Physical, Life, and Earth/Space science

The *Priority Academic Student Skills (PASS)* should be taught by investigating content, concepts, and principles of major themes in Physical, Life, and Earth/Space Sciences.

### SCIENCE PROCESSES AND INQUIRY

#### Grade 4


**Process Standard 1: Observe and Measure – Observing is the first action taken by the learner to acquire new information about an object, organism, or event. Opportunities for observation are developed through the use of a variety of scientific tools. Measurement allows observations to be quantified. The student will accomplish these objectives to meet this process standard.**

1. Observe and measure objects, organisms, and/or events (e.g., mass, length, time, volume, temperature) using International System of Units (SI) (i.e., grams, milligrams, meters, millimeters, centimeters, kilometers, liters, milliliters, and degrees Celsius).
2. Compare and/or contrast similar and/or different characteristics (e.g., color, shape, size, texture, sound, position, change) in a given set of objects organisms or events.

**Process Standard 2: Classify – Classifying establishes order. Objects, organisms, and events are classified based on similarities, differences, and interrelationships. The student will accomplish these objectives to meet this process standard.**

1. Classify a set of objects, organisms, and/or events using two or more observable properties (e.g., simple dichotomous keys).
2. Arrange objects, organisms, and/or events in serial order (e.g., least to greatest, fastest to slowest).

**Process Standard 3: Experiment – Experimenting is a method of discovering information. It requires making observations and measurements to test ideas. The student will accomplish these objectives to meet this process standard.**

- \*1. Ask questions about the world and formulate an orderly plan to investigate a question. 

## Priority Academic Student Skills

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2. Evaluate the design of a scientific investigation.
- \*3. Design and conduct a scientific investigation.
4. Recognize potential hazards and practice safety procedures in all science investigations.

**Process Standard 4: Interpret and Communicate – Interpreting is the process of recognizing patterns in collected data by making inferences, predictions, or conclusions. Communicating is the process of describing, recording, and reporting experimental procedures and results to others. Communication may be oral, written, or mathematical and includes organizing ideas, using appropriate vocabulary, graphs, other visual representations, and mathematical equations. The student will accomplish these objectives to meet this process standard.**

- \*1. Report data using tables, line, bar, trend, and/or simple circle graphs. 📖
2. Interpret data tables, line, bar, trend and/or simple circle graphs. 📖
3. Make predictions based on patterns in experimental data.
4. Communicate the results of investigations and/or give explanations based on data. 📖

**Process Standard 5: Inquiry – Inquiry can be defined as the skills necessary to carry out the process of scientific or systemic thinking. In order for inquiry to occur, students must have the opportunity to ask a question, formulate a procedure, and observe phenomena. The student will accomplish these objectives to meet this process standard.**

- \*1. Use different ways to investigate questions and evaluate the fairness of the test.
- \*2. Use a variety of measurement tools and technology.
- \*3. Formulate a general statement to represent the data.
- \*4. Share results of an investigation in sufficient detail so that data may be combined with data from other students and analyzed further.

### PHYSICAL SCIENCE

# Priority Academic Student Skills

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## Grade 4

**Standard 1: Position and Motion of Objects – The position of a moving object can be described relative to a stationary object or the background. The student will engage in investigations that integrate the process standards and lead to the discovery of the following objectives:**

1. The position and motion of objects can be changed by pushing or pulling. The size of the change is related to the strength of the push or pull.
2. The motion of an object can be described by tracing and measuring its position over time.

**Standard 2: Energy – Energy is the ability to do work or to cause a change in matter. Forms of energy include electricity, heat (thermal), light and sound. The student will engage in investigations that integrate the process standards and lead to the discovery of the following objectives:**

1. Electricity is the flow of electrical power or charge.
  - a. The flow of electricity is controlled by open and closed circuits.
  - b. Some materials are conductors of electricity while others are insulators.
2. Heat results when substances burn, when certain kinds of materials rub against each other, and when electricity flows through wires.
  - a. Metals are good conductors of heat and electricity.
  - b. Increasing the temperature of any substance requires the addition of heat energy.
3. Light is a form of energy made of electromagnetic waves.
  - a. Light waves travel in a straight line.
  - b. Substances may cause light waves to change direction of travel (e.g., reflection, refraction).
  - c. Sound is a form of energy caused by waves of vibrations that spread from its source.

## LIFE SCIENCE

# Priority Academic Student Skills

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## Grade 4

**Standard 3: Characteristics of Organisms – Each type of organism has structures that enable it to function in unique and specific ways to obtain food, reproduce and survive. The student will engage in investigations that integrate the process standards and lead to the discovery of the following objectives:**

1. Organisms can survive only in environments in which their needs can be met (e.g., food, shelter, air, reproduction, and water).
2. Living organisms may be grouped by various characteristics or the environment in which they live (e.g., habitats, anatomy, behaviors).
3. Many observable characteristics of an organism, are inherited from the parents of the organisms (e.g., color of flowers, number of limbs on an animal).
4. Energy from the Sun is passed to organisms through food chains.

## ELEMENTARY EARTH/SPACE SCIENCE

### Grade 4

**Standard 4: Properties of Earth and Moon - The Earth and its Moon have specific properties. The student will engage in investigations that integrate the process standards and lead to the discovery of the following objectives:**

1. Earth materials consist of rock, soils, water, and air.
2. The processes of erosion, weathering, and sedimentation affect Earth materials (e.g., earthquakes, floods, landslides, volcanic eruptions).
3. Fossils provide evidence about the plants and animals that lives long ago and the nature of the environment at that time (e.g., the formation of fossils).
4. The observable shape of the moon changes from day to day in a cycle that lasts about a month.

## SCIENCE Grade 5

# Priority Academic Student Skills

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## Standards for Inquiry, Physical, Life, and Earth/Space Science

The *Priority Academic Student Skills (PASS)* should be taught by investigating content, concepts, and principles of major themes in Physical, Life, and Earth/Space Sciences.

### SCIENCE PROCESSES AND INQUIRY

#### Grade 5

**Process Standard 1: Observe and Measure – Observing is the first action taken by the learner to acquire new information about an objects, organism, or event. Opportunities for observation are developed through the use of a variety of scientific tools. Measurement allows observations to be quantified. The student will accomplish these objectives to meet this process standard.**

1. Observe and measure objects, organisms, and/or events (e.g., mass, length, time, volume, temperature) using the International System of Units (SI) (i.e., grams, milligrams, meters, millimeters, centimeters, kilometers, liters, milliliters, and degrees Celsius). Measure using tools (e.g., simple microscopes or magnifier, graduated cylinders, gram spring scales, metric rulers, metric balances and Celsius thermometers).
2. Compare and/or contrast similar and/or different characteristics (e.g., color, shape, size, texture, sound, position, change) in a given set of objects, organisms, or events.

**Process Standard 2: Classify – Classifying establishes order. Objects, organisms, and events are classified based on similarities, differences, and interrelationships. The student will accomplish these objectives to meet this process standard.**

1. Classify a set of objects, organisms, and/or events using no more than three observable properties (e.g., dichotomous keys).
2. Arrange objects, organisms and/or events in serial order (e.g., least to greatest, fastest to slowest).



## Priority Academic Student Skills

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**Process Standard 3: Experiment – Experimenting is a method of discovering information. It requires making observations and measurements to test ideas. The student will accomplish these objectives to meet this process standard.**

- \*1. Ask questions about the world and formulate an orderly plan to investigate a question. 📖
2. Evaluate the design of a scientific investigation (e.g., order of investigation procedures, number of tested variables). 📖
- \*3. Design and conduct a scientific investigation.
4. Recognize potential hazards and practice safety procedures in all science investigations.

**Process Standard 4: Interpret and Communicate – Interpreting is the process of recognizing patterns in collected data by making inferences, predictions, or conclusions. Communicating is the process of describing, recording, and reporting experimental procedures and results to others. Communication may be oral, written, or mathematical and includes organizing ideas, using appropriate vocabulary, graphs, other visual representations, and mathematical equations. The student will accomplish these objectives to meet this process standard.**

- \*1. Report data using tables, line, bar, trend, and/or simple circle graphs. 📖
2. Interpret data tables, line bar, trend, and/or simple circle graphs. 📖
3. Make predictions based on patterns in experimental data. 📖
4. Communicate the results of investigations and/or give explanations based on data. 📖

**Process Standard 5: Inquiry – Inquiry can be defined as the skills necessary to carry out the process of scientific or systemic thinking. In order for inquiry to occur, students must have the opportunity to ask a question, formulate a procedure, and observe phenomena. The student will accomplish these objectives to meet this process standard.**

- \*1. Use different ways to investigate questions and evaluate the fairness of the test.
- \*2. Use a variety of measurement tools and technology.
- \*3. Formulate a general statement to represent the data.

# Priority Academic Student Skills

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- \*4. Share results of an investigation in sufficient detail so that data may be combined with data from other students and analyzed further. 📖

## PHYSICAL SCIENCE

### Grade 5

**Standard 1: Properties of Matter and Energy – Describe characteristics of objects based on physical qualities such as size, shape, color, mass, temperature, and texture. Energy can produce changes in properties of objects such as changes in temperature. The student will engage in investigations that integrate the process standards and lead to the discovery of the following objectives:**

1. Matter has physical properties that can be used for identification (e.g., color, texture, shape).
2. Physical properties of objects can be observed, described, and measured using tools such as simple microscopes, gram spring scales, metric rulers, metric balances, and Celsius thermometers.
3. Energy can be transferred in many ways (e.g., energy from the Sun to air, water, and metal).
4. Energy can be classified as either potential or kinetic.

## LIFE SCIENCE

### Grade 5

**Standard 2: Organisms and Environments – Organisms within an ecosystem are dependent on one another and the environment. The student will engage in investigations that integrate the process standards and lead to the discovery of the following objectives:**

1. Organisms in an ecosystem depend on each other for food, shelter, and reproduction.
  - a. Ecosystems include food chains and food webs.
  - b. Relationships exist between consumers, producers, and decomposers within an ecosystem.
  - c. Predators and prey relationships affect populations in an ecosystem.
2. Changes in environmental conditions due to human interactions or natural phenomena can affect the survival of individual organisms and/or entire species.

## Priority Academic Student Skills

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- a. Earth's resources can be natural (non-renewable) or man-made (renewable).
- b. The practices of recycling, reusing, and reducing help to conserve Earth's limited resources.

### EARTH/SPACE SCIENCE

#### Grade 5

**Standard 3: Structure of Earth and the Solar System – Interaction between air, water, rock/soil, and all living things. The student will engage in investigations that integrate the process standards and lead to the discovery of the following objectives:**

1. Soil consists of weathered rocks and decomposed organic material from dead plants, animals, and bacteria. Soils are often found in layers.
2. Weather exhibits daily and seasonal patterns (i.e., air temperature, basic cloud types – cumulus, cirrus, stratus, and nimbus, wind direction, wind speed, humidity, precipitation).
  - a. Weather measurement tools include thermometer, barometer, anemometer, and rain gauge.
  - b. Weather maps are used to display current weather and weather predictions.
3. Earth is the third planet from the Sun in a system that includes the moon, the Sun, and seven other planets.
  - a. Most objects in the solar system are in regular and predictable motion (e.g., phases of the moon).
  - b. Objects in the Solar System have individual characteristics (e.g., distance from Sun, number of moons, temperature of object).
  - c. The Earth rotates on its axis while making revolutions around the Sun.

# Priority Academic Student Skills

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## **SCIENCE OVERVIEW ORGANIZATION**

The *Priority Academic Student Skills (PASS)* are organized by Science Process and Inquiry standards and content Standards which include Physical Science, Life Science, and Earth/Space Science. They are arranged by grade level at Grades 1-8, and by course subject area at the high school level. Each standard is followed by two or more objectives to accomplish each standard. Students should be provided with science experiences at each grade level from all areas of the content standards. This integrated approach will provide students with a coordinated, coherent understanding of the necessary skills and knowledge of scientifically literate citizens.

The Oklahoma State Testing Program assesses the Science Priority Academic Student Skills (PASS) with a 5<sup>th</sup> and 8<sup>th</sup> grade criterion-referenced test and a Biology I End-of-Instruction test. All of these state level assessments are based on the standards in this document.

The objectives presented in the “Science Processes and Inquiry” standards are included at all grade levels, because the understandings and abilities associated with these concepts need to be developed throughout a student’s educational experience.

The content standard areas (physical, life, earth/space) are designed to facilitate conceptual development by building on the content knowledge introduced at the PreKindergarten level. Because each of the content standards subsumes the knowledge and skills of the other standards, they are designed to be used as a whole. Although material can be added to the content standards, using only a portion of the standards will leave gaps in the scientific understanding expected of students.

## **SCIENCE STANDARDS Grades 1-12**

The science framework presented in this outline is what students should know, understand, and be able to do in the natural sciences. Students combine process and knowledge as they use scientific reasoning and critical thinking to develop their understanding of science. Inquiry builds conceptual bridges between process and scientific knowledge. Relevant use of developmentally appropriate technology facilitates the inquiry process.

The attainment of scientific literacy is the result of a sequential curriculum that is dependent on quality science teaching at each grade level beginning in prekindergarten. Quality science teaching requires direct, inquiry-oriented learning experiences that emphasize the processes of science and major science concepts. Consistent with national standards, fewer concepts in physical, life and earth/space sciences are explored while more emphasis is placed on in-depth understanding. The following standards provide a framework to achieve the above goals.

The science standards are not a scope and sequence or a district curriculum guide. They provide a framework for schools to develop an aligned science curriculum and for teachers to develop their own classroom lessons. The science standards in this document were developed

## Priority Academic Student Skills

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based on the *National Science Education Standards* by the National Research Council, the *Benchmarks for Scientific Literacy* by the American Association for the Advancement of Science, and the *Science Frameworks* by the National Association for Educational Progress (NAEP). The United States has established a goal for all students to achieve scientific literacy. These national publications, developed by science and education experts, will enable the nation and the state of Oklahoma to meet this goal.

### **NOTE:**

Asterisks (\*) have been used to identify standards and objectives that must be assessed by the local school district. All other skills may be assessed by the Oklahoma School Testing Program (OSTP).

Book icons (📖) identify Information Literacy skills. Students are best served when these are taught in collaboration and cooperation between the classroom teacher and the library media specialist.

Use of term i.e. means “in exactness”; use of the term e.g. means “example given”.

OAC 210:15-3-70—210:15-3-82

Approved by the Oklahoma State Board of Education, March 24, 2011. Final approval pending by Oklahoma Governor and Legislature.

# Priority Academic Student Skills

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## SCIENCE Grade 6

### Standards for Inquiry, Physical, Life, and Earth/Space Science

The *Priority Academic Student Skills (PASS)* should be taught by investigating content, concepts, and principles of major themes in Physical, Life, and Earth/Space Sciences.

## SCIENCE PROCESSES AND INQUIRY

### Grade 6

**Process Standard 1: Observe and Measure – Observing is the first action taken by the learner to acquire new information about an object, organism, or event. Opportunities for observation are developed through the use of a variety of scientific tools. Measurement allows observations to be quantified. The student will accomplish these objectives to meet this process standard.**

1. Identify qualitative and/or quantitative changes given conditions (e.g., temperature, mass, volume, time, position, length) before, during, and after an event.
2. Use appropriate tools (e.g., metric ruler, graduated cylinder, thermometer, balances, spring scales, stopwatches, computers and handheld data collection devices) to measure objects, organisms, and/or events.
3. Use appropriate International System of Units (SI) (i.e., grams, meters, liters, degrees Celsius, and seconds) and SI prefixes (i.e. milli-, centi-, and kilo-) when measuring objects, organisms and/or events.

**Process Standard 2: Classify – Classifying establishes order. Objects, organisms, and events are classified based on similarities, differences, and interrelationships. The student will accomplish these objectives to meet this process standard.**

1. Using observable properties, place an object, organism, and/or event into a classification system (e.g., dichotomous keys, periodic table, biological hierarchy).
2. Identify properties by which a set of objects, organisms, or events could be ordered.

**Process Standard 3: Experimental design – Understanding experimental designs requires that students recognize the components of a valid experiment. The student will accomplish these objectives to meet this process standard.**

## Priority Academic Student Skills

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- \*1. Ask questions about the world and design investigations that lead to scientific inquiry. Identify testable questions based on prior knowledge, background research, or observations. 📖
2. Evaluate the design of a scientific investigation.
3. Identify variables and/or controls in an experimental setup: independent variable and dependent variable.
- \*4. Identify a testable hypothesis for an experiment.
- \*5. Follow a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.
6. Recognize potential hazards and practice safety procedures in all science activities.


**Process Standard 4: Interpret and Communicate – Interpreting is the process of recognizing patterns in collected data by making inferences, predictions, or conclusions. Communicating is the process of describing, recording, and reporting experimental procedures and results to others. Communication may be oral, written, or mathematical and includes organizing ideas, using appropriate vocabulary, graphs, other visual representations, and mathematical equations. The student will accomplish these objectives to meet this process standard.**

- \*1. Report and record both quantitative/qualitative data in an appropriate method when given an experimental procedure or data. 📖
2. Interpret data tables, line, bar, trend, and/or circle graphs. 📖
3. Evaluate data to develop reasonable explanations and/or predictions. 📖
4. Determine if results of investigations support or do not support hypotheses. 📖
- \*5. Communicate scientific processes, procedures, and conclusions (e.g., model, poster, diagram, journal entry, lab report, scientific paper, oral presentation, and digital presentation). 📖

**Process Standard 5: Inquiry – Inquiry can be defined as the skills necessary to carry out the process of scientific thinking. In order for inquiry to occur students must have the opportunity to make observations, pose questions, formulate testable hypotheses, carry out experiments, and make conclusions based on evidence. The student will accomplish these objectives to meet this process standard.**

## Priority Academic Student Skills

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- \*1. Ask questions that can be answered through scientific investigation.
- \*2. Design and conduct experiments utilizing scientific processes.
- \*3. Use the engineering design process to address a problem or need (e.g., identify a need, conduct background research, prepare preliminary designs, build and test a prototype, test and revise design, communicate results). 
- \*4. Understand the value of technology and use technology to gather data and analyze results of investigations (e.g., probes, hand-held digital devices, digital cameras, software).
- \*5. Develop a logical relationship between evidence and explanation to form and communicate a valid conclusion, and suggest alternative explanations.

### PHYSICAL SCIENCE

#### Grade 6

**Standard 1: Physical Properties in Matter - Physical characteristics of objects can be described using shape, size, and mass whereas the materials from which objects are made can be described using color and texture. The student will engage in investigations that integrate the process standards and lead to the discovery of the following objectives:**

- 1. Matter has physical properties that can be measured (i.e., mass, volume, temperature, color, and texture). Changes in physical properties of objects can be observed, described, and measured using tools such as simple microscopes, gram spring scales, metric rulers, metric balances, and Celsius thermometers.
- 2. The mass of an object is not altered due to changes in shape.

**Standard 2: Transfer of Energy - Change from one form of energy to another. The student will engage in investigations that integrate the process standards and lead to the discovery of the following objectives:**

- 1. Energy exists in many forms such as heat, light, electricity, mechanical motion, and sound. Energy can be transferred in various ways (e.g., potential to kinetic, electrical to light, chemical to electrical, mechanical to electrical).
- 2. Electrical circuits provide a means of transferring electrical energy when heat, light, and sound are produced (e.g., open and closed circuits, parallel and series circuits).
- 3. Electric currents and magnets can exert a force on each other (e.g., direct and alternating currents).



# Priority Academic Student Skills

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## LIFE SCIENCE

### Grade 6

**Standard 3: Structure and Function in Living Systems - Living systems at all levels of organization demonstrate the complementary nature of structure and function. The student will engage in investigations that integrate the process standards and lead to the discovery of the following objectives:**

1. Cells are the building blocks of all organisms (both plants and animals).
  - a. Plant and animal cells have similarities and differences (i.e., nucleus, mitochondria, cell wall, plasma membrane, chloroplast, and vacuole).
2. Living systems are organized by levels of complexity (i.e., cells, organisms, and ecosystems).

**Standard 4: Populations and Ecosystems - Populations consist of individuals of a species that occur together at a given place and time. All populations living together and the physical factors with which they interact compose an ecosystem. The student will engage in investigations that integrate the process standards and lead to the discovery of the following objectives:**

1. Organisms within an ecosystem are dependent on one another and on nonliving components of the environment. Some source of energy is needed for all organisms to stay alive and grow. Energy transfer can be followed in food chains and webs.
2. In all environments, organisms with similar needs may compete with one another for resources, including food, space, water, air, and shelter. Other relationships may be beneficial (e.g., producers/autotrophs, consumers/heterotrophs, symbiosis).

**Standard 5: Structures of the Earth and the Solar System - The earth is mostly rock, three-fourths of its surface is covered by a relatively thin layer of water, and the entire planet is surrounded by a relatively thin blanket of air, and is able to support life. The student will engage in investigations that integrate the process standards and lead to the discovery of the following objectives:**

1. Earth has four main systems that interact: the geosphere, the hydrosphere, the atmosphere, and the biosphere.
  - a. The geosphere is the portion of the Earth system that includes the Earth's interior, rocks and minerals, landforms, and the processes that shape the Earth's surface.
  - b. The hydrosphere is the liquid water component of the Earth. Water covers the majority of the Earth's surface and circulates through the crust, oceans and atmosphere in what is known as the water cycle.

## Priority Academic Student Skills

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- c. The atmosphere is a mixture of nitrogen, oxygen, and trace gases that include water vapor. The atmosphere has a different physical and chemical composition at different elevations.
  - d. The biosphere is made up of all that is living on the Earth. It is a life-supporting global ecosystem, where living things depend on other organisms and the environment.
2. The sun provides the light and heat necessary to maintain life on Earth and is the ultimate source of energy (i.e., producers receive their energy from the sun).

# Priority Academic Student Skills

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## SCIENCE

### Grade 7

#### Standards for Inquiry, Physical, Life, and Earth/Space Science

The *Priority Academic student Skills (PASS)* should be taught by investigating content, concepts, and principles of major themes in Physical, Life, and Earth/Space Sciences.

## SCIENCE PROCESSES AND INQUIRY

### Grade 7

**Process Standard 1: Observe and Measure – Observing is the first action taken by the learner to acquire new information about an object, organism, or event. Opportunities for observation are developed through the use of a variety of scientific tools. Measurement allows observations to be quantified. The student will accomplish these objectives to meet this process standard.**

1. Identify qualitative and/or quantitative changes given conditions (e.g., temperature, mass, volume, time, position, length) before, during, and after an event.
2. Use appropriate tools (e.g., metric ruler, graduated cylinder, thermometer, balances, spring scales, stopwatches, computers and handheld data collection devices) to measure objects, organisms, and/or events.
3. Use appropriate International System of Units (SI) (i.e., grams, meters, liters, degrees Celsius, and seconds) and SI prefixes (i.e., milli-, centi-, and kilo-) when measuring objects, organisms and/or events.

**Process Standard 2: Classify – Classifying establishes order. Objects, organisms, and events are classified based on similarities, differences, and interrelationships. The student will accomplish these objectives to meet this process standard.**

1. Using observable properties, place an object, organism, and/or event into a classification system (i.g., dichotomous keys, periodic table, biological hierarchy).
2. Identify properties by which a set of objects, organisms, or events could be ordered.

**Process Standard 3: Experimental design – Understanding experimental designs requires that students recognize the components of a valid experiment. The student will accomplish these objectives to meet this process standard.**

## Priority Academic Student Skills

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1. Evaluate the design of a scientific investigation. 📖
2. Identify variables and/or controls in an experimental setup: independent variable and dependent variable.
- \*3. Identify a testable hypothesis for an experiment.
- \*4. Follow a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.
5. Recognize potential hazards and practice safety procedures in all science activities.

**Process Standard 4: Interpret and Communicate – Interpreting is the process of recognizing patterns in collected data by making inferences, predictions, or conclusions. Communicating is the process of describing, recording, and reporting experimental procedures and results to others. Communication may be oral, written, or mathematical and includes organizing ideas, using appropriate vocabulary, graphs, other visual representations, and mathematical equations. The student will accomplish these objectives to meet this process standard.**

- \*1. Report and record both quantitative/qualitative data in an appropriate method when given an experimental procedure or data. 📖
2. Interpret data tables, line, bar, trend, and/or circle graphs. 📖
3. Evaluate data to develop reasonable explanation and/or predictions. 📖
- \*4. Determine if results of investigations support or do not support hypotheses. 📖
- \*5. Communicate scientific processes, procedures, and conclusions (e.g., model, poster, diagram, journal entry, lab report, scientific paper, oral presentation, and digital presentation). 📖

**Process Standard 5: Inquiry – Inquiry can be defined as the skills necessary to carry out the process of scientific thinking. In order for inquiry to occur students must have the opportunity to make observations, pose questions, formulate testable hypotheses, carry out experiments, and make conclusions based on evidence. The student will accomplish these objectives to meet this process standard.**

- \*1. Ask questions that can be answered through scientific investigation.
- \*2. Design and conduct experiments utilizing scientific processes.

## Priority Academic Student Skills

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- \*3. Use the engineering design process to address a problem or need (e.g., identify a need, conduct background research, prepare preliminary designs, build and test a prototype, test and revise design, communicate results). 📖
- \*4. Understand the value of technology and use technology to gather data and analyze results of investigations (e.g., probes, hand-held digital devices, digital cameras, software, computers, calculators, digital balances, GPS).
- \*5. Develop a logical relationship between evidence and explanation to form and communicate a valid conclusion, and suggest alternative explanation.

### PHYSICAL SCIENCE

#### Grade 7

**Standard 1: Properties and Physical changes in Matter – Physical characteristics of objects can be described using shape, size, and mass whereas the materials from which objects are made can be described using color and texture. The student will engage in investigations that integrate the process standards and lead to the discovery of the following objectives:**

1. Matter has physical properties that can be measured (i.e., mass, volume, temperature, color, texture, and density). Physical changes of a substance do not alter the chemical nature of a substance (e.g., phase changes of water, sanding wood).
2. Mixtures can be classified as homogeneous or heterogeneous and can be separated by physical means.

### LIFE SCIENCE

#### Grade 7

**Standard 2: Structure and Function in Living Systems - Living systems at all levels of organization demonstrate the complementary nature of structure and function. The student will engage in investigations that integrate the process standards and lead to the discovery of the following objectives:**

1. Living systems are organized by levels of complexity (i.e., cells, tissues, organs, systems).
2. Specialized structures perform specific functions at all levels of complexity (e.g., leaves on trees, wings on birds, organelles in cells).

## Priority Academic Student Skills

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**Standard 3: Reproduction and Heredity – Reproduction is the process by which organisms give rise to offspring. Heredity is the passing of traits to offspring. All organisms must be able to grown and reproduce. The student will engage in investigations that integrate the process standards and lead to the discovery of the following objectives:**

1. Characteristics of an organism result from inheritance and from interactions with the environment (e.g., genes, chromosomes, DNA, inherited traits, cell division).
2. Similarities among organisms are found in anatomical features, which can be used to infer the degree of relatedness among organisms.

**Standard 4: Behavior and Regulations - All organisms must be able to maintain stable internal conditions while living in a constantly changing external environment. Behavioral response is a set of actions determined in part by heredity and in part by experience. The student will engage in investigations that integrate the process standards and lead to the discovery of the following objectives:**

1. Living organisms strive to maintain a constant internal environment (i.e., homeostasis).
2. Living organisms have physical and/or behavioral responses to external stimuli (e.g., hibernation, migration, geotropism).

### EARTH/SPACE SCIENCE

#### Grade 7

**Standard 5: Structures of the Earth Structures of the Earth System - The Earth is mostly rock, three-fourths of its surface is covered by a relatively thin layer of water, and the entire planet is surrounded by a relatively thin blanket of air, and is able to support life. The student will engage in investigations that integrate the process standards and lead to the discovery of the following objectives:**

1. Global patterns of atmospheric movement influence local weather such as oceans' effect on climate (e.g., sea breezes, land breezes, ocean currents). Clouds, formed by the condensation of water vapor, affect local weather and climate.
2. The solid crust of the earth consists of separate plates that move very slowly pressing against one another in some places and pulling apart in other places (i.e., volcanoes, earthquakes, mountain creation).

## Priority Academic Student Skills

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**Standard 6: Earth and the Solar System - The earth is the third planet from the sun in a system that includes the moon, the sun, seven other planets and their moons, and smaller objects (e.g., asteroids, comets, dwarf planets. The student will engage in investigations that integrate the process standards and lead to the discovery of the following objectives:**

1. Most objects in the solar system are in regular and predictable motion. Those motions explain such phenomena as the day, the year, phases of the moon, and eclipses.
- \*2. Seasons result from variations in the amount of the sun's energy hitting the surface, due to the tilt of the earth's rotation on its axis and the length of the day. The relationship of motion of the Sun, Earth, and Earth's Moon is a result of the force of gravity.

# Priority Academic Student Skills

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## SCIENCE Grade 8

### Standards for Inquiry, Physical, Life, and Earth/Space Science

The *Priority Academic Student Skills (PASS)* should be taught by investigating content, concepts, and principles of major themes in Physical, Life, and Earth/Space Sciences.

## SCIENCE PROCESSES AND INQUIRY

### Grade 8

**Process Standard 1: Observe and Measure - Observing is the first action taken by the learner to acquire new information about an object, organism, or event. Opportunities for observation are developed through the use of a variety of scientific tools. Measurement allows observations to be quantified. The student will accomplish these objectives to meet this process standard.**

1. Identify qualitative and/or quantitative changes given conditions (e.g., temperature, mass, volume, time, position, length) before, during, and after an event.
2. Use appropriate tools (e.g., metric ruler, graduated cylinder, thermometer, balances, spring scales, stopwatches, computers, handheld data collection devices) to measure objects, organisms, and/or events.
3. Use appropriate International System of Units (SI) (i.e., grams, meters, liters, degrees Celsius, and seconds) and SI prefixes (i.e. milli-, centi-, and kilo-) when measuring objects, organisms and/or events.

**Process Standard 2: Classify - Classifying establishes order. Objects, organisms, and events are classified based on similarities, differences, and interrelationships. The student will accomplish these objectives to meet this process standard.**

1. Using observable properties, place an object, organism, and/or event into a classification system (e.g., dichotomous keys, periodic table, biological hierarchy).
2. Identify properties by which a set of objects, organisms, or events could be ordered.

**Process standard 3: Experimental design - Understanding experimental design requires that students recognize the components of a valid experiment. The student will accomplish these objectives to meet this process standard.**



## Priority Academic Student Skills

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- \*1. Ask questions about the world and design investigations that lead to scientific inquiry. Identify testable questions based on prior knowledge, background research, or observations.
2. Evaluate the design of a scientific investigation.
3. Identify variables and/or controls in an experimental setup: independent variable and dependent variable.
- \*4. Identify a testable hypothesis for an experiment.
- \*5. Follow a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.
6. Recognize potential hazards and practice safety procedures in all science activities.


**Process Standard 4: Interpret and Communicate - Interpreting is the process of recognizing patterns in collected data by making inferences, predictions, or conclusions. Communicating is the process of describing, recording, and reporting experimental procedures and results to others. Communication may be oral, written, or mathematical and includes organizing ideas, using appropriate vocabulary, graphs, other visual representations, and mathematical equations. The student will accomplish these objectives to meet this process standard.**

- \*1. Report and record both quantitative/qualitative data in an appropriate method when given an experimental procedure or data. 📖
2. Interpret data tables, line, bar, trend, and/or circle graphs. 📖
3. Evaluate to develop reasonable explanation and/or predictions. 📖
- \*4. Determine if results of investigations support or do not support hypotheses. 📖
- \*5. Communicate scientific processes, procedures, and conclusions (e.g., model, poster, diagram, journal entry, lab report, scientific paper, oral presentation, and digital presentation). 📖

## Priority Academic Student Skills

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**Process Standard 5: Inquiry - Inquiry can be defined as the skills necessary to carry out the process of scientific thinking. In order for inquiry to occur students must have the opportunity to make observations, pose questions, formulate testable hypotheses, carry out experiments, and make conclusions based on evidence. The student will accomplish these objectives to meet this process standard.**

- \*1. Ask questions that can be answered through scientific investigation.
- \*2. Design and conduct experiments utilizing scientific processes.
- \*3. Use the engineering design process to address a problem or need (e.g., identify a need, conduct background research, prepare preliminary designs, build and test a prototype, test and revise design, communicate results). 
- \*4. Understand the value of technology and use technology to gather data and analyze results of investigations (e.g., probes, hand-held digital devices, digital cameras, software, computers, calculators, digital balances, GPS).
- \*5. Develop a logical relationship between evidence and explanation to form and communicate a valid conclusion, and suggest alternative explanation.

### PHYSICAL SCIENCE

#### Grade 8

**Standard 1: Properties and Chemical Changes in Matter - Physical characteristics of objects can be described using shape, size, and mass. The materials from which objects are made can be described using color, texture, and hardness. These properties can be used to distinguish and separate one substance from another. The student will engage in investigations that integrate the process standards and lead to the discovery of the following objectives:**

- 1. Substances react chemically with other substances to form new substances with different characteristics (e.g., oxidation, combustion, acid/base reactions).
- 2. Matter has physical properties that can be measured (i.e., mass, volume, temperature, color, texture, density, and hardness) and chemical properties. In chemical reactions and physical changes, matter is conserved (e.g., compare and contrast physical and chemical changes).

**Standard 2: Motions and Forces - The motion of an object can be described by its position, direction of motion, and speed as prescribed by Newton's Laws of Motion. The student will engage in investigations that integrate the process standards and lead to the discovery of the following objectives:**

## Priority Academic Student Skills

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1. The motion of an object can be measured. The position of an object, its speed, and direction can be represented on a graph.
2. An object that is not being subjected to a net force will continue to move at a constant velocity (i.e., inertia, balanced and unbalanced forces).

### LIFE SCIENCE

#### Grade 8

**Standard 3: Diversity and Adaptations of Organisms - Millions of species of animals, plants, and microorganisms are alive today. Although different species might look dissimilar, the unity among organisms becomes apparent from an analysis of internal and external structures. Adaptation involves the selection of naturally occurring variations in populations. The student will engage in investigations that integrate the process standards and lead to the discovery of the following objectives:**

1. By classifying organisms, biologists consider details of internal and external structure to infer the degree of relatedness among organisms (i.e., kingdom, phylum, class, order, family, genus, species).
2. Organisms have a great variety of internal and external structures that enable them to survive in a specific habitat (e.g., echolocation, seed dispersal).

### EARTH/SPACE SCIENCE

#### Grade 8

**Standard 4: Structures and Forces of the Earth and Solar System - The earth is mostly rock, three-fourths of its surface is covered by a relatively thin layer of water, and the entire planet is surrounded by a relatively thin blanket of air, and is able to support life. The student will engage in investigations that integrate the process standards and lead to the discovery of the following objectives:**

1. Landforms result from constructive forces such as crustal deformation, volcanic eruption, and deposition of sediment and destructive forces such as weathering and erosion.
2. The formation, weathering, sedimentation, and reformation of rock constitute a continuing “rock cycle” in which the total amount of material stays the same as its form changes.
3. Atmospheric and ocean circulation patterns affect weather on a global scale (e.g., El Niño, La Niña, Gulf Stream).

## Priority Academic Student Skills

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**Standard 5: Earth's History - The Earth's history involves periodic changes in the structures of the earth over time. The student will engage in investigations that integrate the process standards and lead to the discovery of the following objectives:**

1. Earth's history has been punctuated by occasional catastrophic events (e.g., the impact of asteroids or comets, enormous volcanic eruptions, periods of continental glaciation, and the rise and fall of sea level).
2. Fossils provide important evidence of how life and environmental conditions have changed (e.g., Law of Superposition, index fossil, geologic time period, extinction).

# Priority Academic Student Skills

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## SCIENCE OVERVIEW ORGANIZATION

The *Priority Academic Student Skills (PASS)* are organized by Science Process and Inquiry Standards and Content Standards which include Physical Science, Life Science, and Earth/Space Science. They are arranged by grade level at Grades 1-8, and by course subject area at the high school level. Each standard is followed by two or more objectives to accomplish each standard. Students should be provided with science experiences at each grade level from all areas of the content standards. This integrated approach will provide students with a coordinated, coherent understanding of the necessary skills and knowledge of scientifically literate citizens.

The Oklahoma State Testing Program assesses the Science *Priority Academic Student Skills (PASS)* with a 5th and 8th grade criterion-referenced test and a Biology I End-of-Instruction test. All of these state level assessments are based on the standards in this document.

The objectives presented in the “Science Processes and Inquiry” standards are included at all grade levels, because the understandings and abilities associated with these concepts need to be developed throughout a student’s educational experience.

The content standard areas (physical, life, earth/space) are designed to facilitate conceptual development by building on the content knowledge introduced at the PreKindergarten level. Because each of the content standards subsumes the knowledge and skills of the other standards, they are designed to be used as a whole. Although material can be added to the content standards, using only a portion of the standards will leave gaps in the scientific understanding expected of students.

## SCIENCE STANDARDS Grades 1-12

The science framework presented in this outline is what students should know, understand, and be able to do in the natural sciences. Students combine process and knowledge as they use scientific reasoning and critical thinking to develop their understanding of science. Inquiry builds conceptual bridges between process and scientific knowledge. Relevant use of developmentally appropriate technology facilitates the inquiry process.

The attainment of scientific literacy is the result of a sequential curriculum that is dependent on quality science teaching at each grade level beginning in prekindergarten. Quality science teaching requires direct, inquiry-oriented learning experiences that emphasize the processes of science and major science concepts. Consistent with national standards, fewer concepts in physical, life and earth/space sciences are explored while more emphasis is placed on in-depth understanding. The following standards provide a framework to achieve the above goals.

The science standards are not a scope and sequence or a district curriculum guide. They provide a framework for schools to develop an aligned science curriculum and for teachers to develop their own classroom lessons. The science standards in this document were developed

## Priority Academic Student Skills

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based on the *National Science Education Standards* by the National Research Council (NRC) and the *Benchmarks for Scientific Literacy* by the American Association for the Advancement of Science (AAAS), and the *Science Frameworks* by the National Association for Education Progress (NAEP). The United States has established a goal for all students to achieve scientific literacy. These national publications, developed by science and education experts, will enable the nation and the state of Oklahoma to meet this goal.

### **NOTE:**

Asterisks (\*) have been used to identify standards and objectives that must be assessed by the local school district. All other skills may be assessed by the Oklahoma School Testing Program (OSTP).

Book icons (📖) identify Information Literacy skills. Students are best served when these are taught in collaboration and cooperation between the classroom teacher and the library media specialist.

Use of the term i.e. means “in exactness”; use of the term e.g. means “example given”.

OAC 210:15-3-70—210:15-3-82

Approved by the Oklahoma State Board of Education, March 24, 2011. Final approval pending by Oklahoma Governor and Legislature.

# Priority Academic Student Skills

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## PHYSICAL SCIENCE

### High School

#### Standards for Inquiry and the Physical Sciences

The *Priority Academic Student Skills (PASS)* should be taught by investigating broad, integrated content, concepts, and principles of major themes in the physical sciences.

#### SCIENCE PROCESSES AND INQUIRY

**Process Standard 1: Observe and Measure - Observing is the first action taken by the learner to acquire new information about an object or event. Opportunities for observation are developed through the use of a variety of scientific tools. Measurement allows observations to be quantified. The student will accomplish these objectives to meet this process standard.**

1. Identify qualitative and quantitative changes given conditions (e.g., temperature, mass, volume, time, position, length) before, during, and after an event.
2. Use appropriate tools with accuracy and precision (e.g., metric ruler, graduated cylinder, thermometer, balances, spring scales, stopwatches) when measuring objects and/or events.
3. Use appropriate International System of Units (SI) (i.e., grams, meters, liters, degrees Celsius, and seconds) and SI prefixes (i.e., micro-, milli-, centi-, and kilo-) when measuring objects and/or events.

**Process Standard 2: Classify - Classifying establishes order. Objects and events are classified based on similarities, differences, and interrelationships. The student will accomplish these objectives to meet this process standard.**

1. Using observable properties, place an object or event into a classification system.
2. Identify the properties by which a classification system is based.

**Process Standard 3: Experimental Design - Understanding experimental design requires that students recognize the components of a valid experiment. The student will accomplish these objectives to meet this process standard.**

1. Evaluate the design of a physical science experiment.
2. Identify the independent variables, dependent variables, controlled variables, and control set-up in an experiment.

## Priority Academic Student Skills

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3. Use mathematics to show relationships within a given set of observations.
4. Identify a hypothesis for a given problem in physical science investigations.
5. Recognize potential hazards and practice safety procedures in all physical science activities.

**Process Standard 4: Interpret and Communicate - Interpreting is the process of recognizing patterns in collected data by making inferences, predictions, or conclusions. Communicating is the process of describing, recording, and reporting experimental procedures and results to others. Communication may be oral, written, or mathematical and includes organizing ideas, using appropriate vocabulary, graphs, other visual representations, and mathematical equations. The student will accomplish these objectives to meet this process standard.**

1. Select appropriate predictions based on previously observed patterns of evidence.
- \*2. Report and display data using appropriate technology and other media.
3. Interpret data tables, line, bar, trend, and/or circle graphs from existing science research or student experiments.
4. Determine if results of physical science investigations support or do not support hypotheses.
5. Evaluate experimental data to draw the most logical conclusion.
- \*6. Routinely prepare a written report describing the sequence, results, and interpretation of a physical science investigation or event.
  - a. Establish and maintain a formal style and objective tone.
  - b. When appropriate or possible, utilize technology to produce, publish, or revise writing products.
  - c. Gather relevant information from multiple authoritative print and digital sources and follow a standard format for citation, avoiding plagiarism.
- \*7. Communicate or defend scientific thinking that resulted in conclusions.
  - a. Read, comprehend, and present evidence from a range of sources (e.g. texts, experiments, simulations) to support conclusions.
  - b. Recognize bias in observation/research.



## Priority Academic Student Skills

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8. Identify and/or create an appropriate graph or chart from collected data, tables, or written description.
  - a. Translate quantitative information expressed in words into visual form (e.g., table, chart).
  - b. Translate information expressed visually or mathematically (e.g. a table, chart, or equation) into words.

**Process Standard 5: Model - Modeling is the active process of forming a mental or physical representation from data, patterns, or relationships to facilitate understanding and enhance prediction. The student will accomplish these objectives to meet this process standard.**

1. Interpret a model which explains a given set of observations.
2. Select predictions based on models, and when appropriate, apply mathematical reasoning to make accurate predictions.
- \*3. Compare a given model to the physical world.

**Process Standard 6: Inquiry - In order for inquiry to occur, students must have the opportunity to make observations, pose questions, formulate testable hypotheses, carry out experiments, and make conclusions based on evidence. The student will accomplish these objectives to meet this process standard.**

- \*1. Formulate a testable hypothesis and design an appropriate experiment relating to the physical world.
- \*2. Design and conduct physical science investigations in which variables are identified and controlled.
- \*3. Use a variety of technologies (e.g., probes, handheld digital devices, digital cameras, software, calculators, digital balances, microscopes, measuring instruments, computers) to collect, analyze, and display data.
- \*4. Inquiries should lead to the formulation of explanations or models (physical, conceptual, and mathematical). In answering questions, students should engage in discussions (based on scientific knowledge, the use of logic, and evidence from the investigation) and arguments that encourage the revision of their explanations, leading to further inquiry.

**Process Standard 7: Engineering Design - Engineering design can be defined as the creative process of turning abstract ideas into a physical prototype (laboratory apparatus, trial product, or model) that addresses a need**

## Priority Academic Student Skills

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**or solves a problem. In order for engineering design to occur, students must have the opportunity to identify a need or problem, establish design criteria, prepare preliminary designs, build then test a prototype, and test and redesign as necessary. The student will accomplish these objectives to meet this process standard:**

- \*1. Identify a need or problem or improve an existing design.
- \*2. Identify design criteria and constraints (e.g., materials used, product limitations, time limits).
- \*3. Use a variety of resources (e.g., Internet, databases, texts) to conduct research in order to develop a preliminary design.
- \*4. Build and test a prototype. Document the strengths and weaknesses of the prototype in writing.
- \*5. Analyze and redesign to determine which solution best meets the criteria and constraints.
- \*6. Communicate results in a variety of ways (e.g., orally, written, Internet publications, videos, posters, product demonstrations).

### PHYSICAL SCIENCE

#### High School

**Standard 1: Structure and Properties of Matter – All matter is made up of atoms. Its structure is made up of repeating patterns and has characteristic properties. The student will engage in investigations that integrate the process standards and lead to the discovery of the following objectives:**

- 1. Matter is made up of minute particles called atoms, and atoms are composed of even smaller components (i.e., protons, neutrons, and electrons).
- 2. An element is identified by the number of protons (atomic number) in the nucleus.
  - a. When elements are listed in order of increasing number of protons, repeating patterns of physical and chemical properties identify families of elements with similar properties.
  - b. Elements found on the earth are also found throughout the universe.
- 3. Matter has characteristic properties that are unique for pure substances and can be used to separate one substance from another (e.g., boiling points, melting points, density).

## Priority Academic Student Skills

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4. A compound is formed when two or more kinds of atoms bind together chemically. Each compound is formed when two or more kinds of atoms bind together chemically. Each compound has unique chemical and physical properties.

**Standard 2: Conservation of Matter – Matter is neither created nor destroyed in physical and chemical interactions. The student will engage in investigations that integrate the process standards and lead to the discovery of the following objectives:**

1. Chemical changes are identified by one or more events (i.e., precipitate, color change, gas production, heat gain or loss).
2. Chemical equations are used to represent chemical changes in which reactant(s) form product(s).
3. Chemical reactions can be classified (e.g., synthesis/combination, decomposition, single displacement, double displacement).

**Standard 3: Motion and Forces – The motion of an object can be described by its position, direction of motion, and speed. A change in motion occurs as a result of a net force. The student will engage in investigations that integrate the process standards and lead to the discovery of the following objectives:**

1. Objects change their motion only due to a net force. Laws of motion are used to determine the effects of forces on the motion of objects. Gravitation is a universal force that each object exerts on any other object.
2. Moving electric charges produce magnetic forces, and moving magnets produce electric forces. Electricity and magnetism are two aspects of a single electromagnetic force (e.g., voltage, current, resistance, induction).

**Standard 4: Interactions of Energy and Matter – Energy can be transferred or transformed but never destroyed. The student will engage in investigations that integrate the process standards and lead to the discovery of the following objectives:**

1. Energy can be classified as kinetic energy (energy of motion) or potential energy (e.g., positional, elastic, chemical, nuclear).
2. Waves radiate energy and interact with matter.
  - a. Propagation of mechanical waves (e.g., sound, seismic, water) requires a medium.
  - b. Electromagnetic waves (radio waves to gamma rays) do not require a medium.

# Priority Academic Student Skills

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## BIOLOGY I

### HIGH SCHOOL

#### Standards for Inquiry and the Biological Sciences

The Priority Academic Student Skills (PASS) should be taught by investigating content, concepts, and principles of major themes in the Biological Sciences.

#### SCIENCE PROCESSES AND INQUIRY

##### High School

**Process Standard 1: Observe and Measure – Observing is the first action taken by the learner to acquire new information about an organism or event. Opportunities for observation are developed through the use of a variety of scientific tools, allowing the student to distinguish between observation and inference. Measurement allows observations to be quantified. The student will accomplish these objectives to meet this process standard.**

1. Identify qualitative and quantitative changes in cells, organisms, populations, and ecosystems given conditions (e.g., temperature, mass, volume, time, position, length, quantity) before, during, and after an event.
2. Use appropriate tools with accuracy and precision (e.g., microscope, pipette, metric ruler, graduated cylinder, thermometer, balance, stopwatch) when measuring cells, organisms, populations, and ecosystems.
3. Use appropriate International System of Units (SI) (i.e., grams, meters, liters, degrees Celsius, and seconds) and SI prefixes (i.e., micro-, milli-, centi-, and kilo-) when measuring objects and/or events.

**Process Standard 2: Classify – Classifying establishes order. Organisms and events are classified based on similarities, differences, and interrelationships. The student will accomplish these objectives to meet this process standard.**

1. Using observable properties, place cells, organisms, and/or events into a biological classification system (e.g., dichotomous keys, taxonomy charts, cladograms).
2. Identify the properties by which a biological classification system is based.

**Process Standard 3: Experimental Design – Understanding experimental design requires that students recognize the components of a valid experiment. The student will accomplish these objectives to meet this process standard.**

## Priority Academic Student Skills

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1. Evaluate the design of a biology laboratory experiment.
2. Identify the independent variables, dependent variables, controlled variables, and control set-up in an experiment.
3. Use mathematics to show relationships within a given set of observations (e.g., population studies, biomass, probability).
4. Identify a hypothesis for a given problem in biology investigations.
5. Recognize potential hazards and practice safety procedures in all biology activities.

**Process Standard 4: Interpret and Communicate – Interpreting is the process of recognizing patterns in collected data by making inferences, predictions, or conclusions. Communicating is the process of describing, recording, and reporting experimental procedures and results to others. Communication may be oral, written, or mathematical and includes organizing ideas, using appropriate vocabulary, graphs, other visual representations, and mathematical equations. The student will accomplish these objectives to meet this process standard.**

1. Select appropriate predictions based on previously observed patterns of evidence.
- \*2. Report and display data using appropriate-technology and other media.
3. Interpret data tables, line, bar, trend, and/or circle graphs from existing science research or student experiments.
4. Determine if results of biological science investigations support or do not support hypotheses.
5. Evaluate experimental data to draw the conclusion that is best supported by the evidence.
- \*6. Routinely prepare a written report describing the sequence, results, and interpretation of a biological investigation or event.
  - a. Establish and maintain a formal style and objective tone.
  - b. When appropriate or possible, utilize technology to produce, publish, or revise writing products.
  - c. Gather relevant information from multiple authoritative print and digital sources and follow a standard format for citation, avoiding plagiarism.

## Priority Academic Student Skills

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- \*7. Communicate or defend scientific thinking that results in conclusions.
  - a. Read, comprehend, and present evidence from a range of sources (e.g., texts, experiments, or simulations) to support conclusions.
  - b. Recognize bias in observation/research.
- 8. Identify and/or create an appropriate graph or chart from collected data, tables, or written description (e.g., population studies, plant growth, heart rate).
  - a. Translate quantitative information expressed in words into visual form (e.g., a table or chart).
  - b. Translate information expressed visually or mathematically (e.g., a table, chart or equation) into words.

**Process Standard 5: Model – Modeling is the active process of forming a mental or physical representation from data, patterns, or relationships to facilitate understanding and enhance prediction. The student will accomplish these objectives to meet this process standard.**

- 1. Interpret a biological model which explains a given set of observations.
- 2. Select predictions based on models (e.g., pedigrees, life cycles), and when appropriate, apply mathematical reasoning to make accurate predictions.
- \*3. Compare a given model to the living world.

**Process Standard 6: Inquiry – Inquiry can be defined as the skills necessary to carry out the process of scientific or systemic thinking. In order for inquiry to occur students must have the opportunity to make observation, pose questions, formulate testable hypotheses, carry out experiments, and make conclusions based on evidence. The student will accomplish these objectives to meet this process standard.**

- \*1. Ask a scientific question, formulate a testable hypothesis, and design an appropriate experiment relating to the living world.
- \*2. Design and conduct biological investigations in which variables are identified and controlled.
- \*3. Use a variety of technologies (e.g., probes, handheld digital devices, electrophoresis equipment, digital cameras, software, calculators, digital balances, microscopes, measuring instruments, and computers) to collect, analyze and display data.

# Priority Academic Student Skills

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- \*4. Inquiries should lead to the formulation of explanations or models (physical, conceptual, and mathematical). In answering questions, students should engage in research and discussions (based on scientific knowledge, the use of logic, and evidence from the investigation) and arguments that encourage the revision of their explanations, leading to further inquiry.

## BIOLOGY I

### High School

**Standard 1: The Cell – Cells are the fundamental unit of life, composed of a variety of structures that perform functions necessary to maintain life. The student will engage in investigations that integrate the process standards and lead to the discovery of the following objectives:**

1. Cells are composed of a variety of structures such as the nucleus, cell/plasma membrane, cell wall, cytoplasm, ribosomes, mitochondria, and chloroplasts.
  - a. The cell/plasma membrane functions (i.e., active transport, passive transport, diffusion, osmosis, and surface area to volume ratio) to maintain homeostasis.
  - b. Differentiate among hypotonic, hypertonic, and isotonic conditions.
  - c. Compare and contrast prokaryotic and eukaryotic cells.
2. In multicellular organisms, cells have levels of organization (i.e., cells, tissues, organs, organ systems, organisms).
3. Specialized cells enable organisms to monitor what is going on in the world around them (e.g., detect light, sound, specific chemicals, gravity, plant tropism, sense organs, homeostasis).

**Standard 2: The Molecular Basis of Heredity – DNA determines the characteristics of organisms. The student will engage in investigations that integrate the process standards and lead to the discovery of the following objectives:**

1. Cells function according to the information contained in the master code of DNA (i.e., cell cycle, DNA replication and transcription). Transfer RNA and protein synthesis will be taught in life science courses with rigor greater than Biology I.
2. A sorting and recombination of genes during sexual reproduction results in a great variety of possible gene combinations from the offspring of any two parents (i.e., Punnett squares and pedigrees). Students will understand concepts in a single trait cross (e.g., alleles, dominant trait, recessive trait, phenotype, genotype, homozygous, heterozygous, incomplete dominance, and sex-linked traits).

## Priority Academic Student Skills

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**Standard 3: Biological Diversity – Diversity of species is developed through gradual processes over many generations. The student will engage in investigations that integrate the process standards and lead to the discovery of the following objectives:**

1. Different species might look dissimilar, but the unity among organisms becomes apparent from an analysis of internal structures, the similarity of their chemical processes, and the evidence of common ancestry (e.g., homologous and analogous structures, embryology, fossil record, genetic data).
2. Characteristics of populations change through the mechanism of natural selection. These biological adaptations, including changes in structures, behaviors, and/or physiology, may enhance or limit survival and reproductive success within a particular environment.
3. Broad patterns of behavior exhibited by animals have changed over time to ensure reproductive success. Responses to external stimuli can result from interactions with the organism's own species and others, as well as environmental changes; these responses can be either innate or learned.

**Standard 4: The Interdependence of Organisms – Interdependence of organisms in an environment includes the interrelationships and interactions between and among organisms. The student will engage in investigations that integrate the process standards and lead to the discovery of the following objectives:**

1. Organisms both cooperate and compete in ecosystems (e.g., symbiotic relationships).
2. Living organisms have the capacity to produce populations of infinite size, but environments and resources limit population size (e.g., carrying capacity, limiting factors, ecological succession).

**Standard 5: Matter, Energy, and Organization in Living Systems – Living systems require a continuous input of energy to maintain their chemical and physical organizations. The student will engage in investigations that integrate the process standards and lead to the discovery of the following objectives:**

1. The complexity and organization of organisms accommodates the need for obtaining, transforming, transporting, releasing, and eliminating the matter and energy used to sustain the organism (i.e., photosynthesis and cellular respiration).
2. As matter and energy flow through different levels of organization of living systems and between living systems and the physical environment, chemical elements are recombined in different ways by different structures. Matter and energy are conserved in each change (i.e., water cycle, carbon cycle, nitrogen cycle, food webs, and energy pyramids).



## Priority Academic Student Skills

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3. Matter on earth cycles among the living (biotic) and nonliving (abiotic) components of the biosphere.

# Priority Academic Student Skills

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## CHEMISTRY

### HIGH SCHOOL

The Priority Academic Student Skills (PASS) should be taught by investigating content, concepts, and principles of major themes in chemistry.

#### SCIENCE PROCESSES AND INQUIRY

**Process Standard 1: Observe and Measure – Observing is the first action taken by the learner to acquire new information about an object or event. Opportunities for observation are developed through the use of a variety of scientific tools. Measurement allows observations to be quantified. The student will accomplish these objectives to meet this process standard.**

1. Identify qualitative changes in reactions and quantitative changes in chemical reactions given conditions (e.g., temperature, mass, volume, time, position, length) before, during and after an event.
2. Use appropriate tools with accuracy and precision (e.g., metric ruler, graduated cylinder, thermometer, balance, spring scale, stopwatch, probeware, graphing calculators, digital cameras, computer simulations) when measuring objects and/or events.
3. Use appropriate International Systems of Units (SI) (i.e., meters, liters, degrees Celsius, and seconds) and SI prefixes (i.e., micro-, milli-, centi-, and kilo-) when measuring mass volume and temperature.

**Process Standard 2: Classify – Classifying establishes order. Objects and events are classified based on similarities, differences, and interrelationships. The student will accomplish these objectives to meet this process standard.**

1. Using observable properties, place an object or event (i.e., chemical versus physical, charge, electron level, and reaction types) into a classification system
2. Identify properties by which a classification system is based.

**Process Standard 3: Experimental Design – Understanding experimental design requires that students recognize the components of a valid experiment. The student will accomplish these objectives to meet this process standard.**

1. Evaluate the design of a chemistry laboratory experiment.

## Priority Academic Student Skills

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2. Identify the independent variables, dependent variables, controlled variables, and control in an experiment.
3. Use mathematics to show relationships within a given set of observations (i.e., conservation of mass and stoichiometry).
4. Identify a hypothesis for a given problem in chemistry investigations.
5. Recognize potential hazards and practice safety procedures in all chemistry laboratory activities.

**Process Standard 4: Interpret and Communicate – Interpreting is the process of recognizing patterns in collected data by making inferences, predictions, or conclusions. Communicating is the process of describing, recording, and reporting experimental procedures and results to others. Communication may be oral, written, or mathematical and includes organizing ideas, using appropriate vocabulary, graphs, other visual representations, and mathematical equations. The student will accomplish these objectives to meet this process standard.**

1. Select appropriate predictions based on previously observed patterns of evidence.
- \*2. Report and display data using appropriate technology and other media.
3. Interpret data tables, line, bar, trend, and/or circle graphs from existing science research or student experiments.
4. Determine if results of chemical science investigations support or do not support hypotheses.
5. Evaluate experimental data to draw the most logical conclusion.
- \*6. Routinely prepare a written report describing the sequence, results, and interpretation of a chemistry investigation or event.
  - a. Establish and maintain a formal style and objective tone.
  - b. When appropriate or possible, utilize technology to produce, publish, or revise writing products.
  - c. Gather relevant information from multiple authoritative print and digital sources and follow a standard format for citation, avoiding plagiarism.
- \*7. Communicate or defend scientific thinking that resulted in conclusions.

## Priority Academic Student Skills

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- a. Read, comprehend, and present evidence from a range of sources (e.g., texts, experiments, or simulations) to support conclusions.
  - b. Recognize bias in observation/research.
8. Identify and/or create an appropriate graph or chart from collected data, tables, or written description.
    - a. Translate quantitative information expressed in words into visual form (e.g., a table or chart).
    - b. Translate information expressed visually or mathematically (e.g., a table, chart, or equation) into words.

**Process Standard 5: Model – Modeling is the active process of forming a mental or physical representation from data, patterns, or relationships to facilitate understanding and enhance prediction. The student will accomplish these objectives to meet this process standard.**

1. Interpret an atomic model which explains a given set of observations.
2. Select predictions based on models (e.g., electron configuration, bonding, compound formation), and when appropriate, apply mathematical reasoning to make accurate predictions.
- \*3. Compare a given model to the physical world.

**Process Standard 6: Inquiry – In order for inquiry to occur, students must have the opportunity to make observations, pose questions, formulate testable hypotheses, carry out experiments, and make conclusions based on evidence. The student will accomplish these objectives to meet this process standard.**

- \*1. Ask a scientific question, formulate a testable hypothesis, and design an appropriate experiment to identify an unknown substance.
- \*2. Design and conduct scientific investigations in which variables are identified and controlled.
- \*3. Use a variety of technologies (e.g., hand tools, balances, conductivity apparatus, thermometers, graduated cylinders, volumetric flasks, computers, probeware, graphing calculators, digital cameras, computer simulations) to collect, analyze, and display data.
- \*4. Inquiries should lead to the formulation of explanations or models (physical, conceptual, and mathematical). In answering questions, students should engage in

## Priority Academic Student Skills

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discussions (based on scientific knowledge, the use of logic, and evidence from the investigation) and arguments that encourage the revision of their explanations, leading to further inquiry.

**Process Standard 7: Engineering Design - Engineering design can be defined as the creative process of turning abstract ideas into a physical prototype (laboratory apparatus, trial product, model) that addresses a need or solves a problem. In order for engineering design to occur, students must have the opportunity to identify a need or problem, establish design criteria, prepare preliminary designs, build then test a prototype, and test and redesign as necessary. The student will accomplish these objectives to meet this process standard:**

- \*1. Identify a need or problem or improve an existing design.
- \*2. Identify design criteria and constraints (e.g., materials used, product limitations, time limits).
- \*3. Use a variety of resources (e.g., Internet, databases, text) to conduct research in order to develop a preliminary design.
- \*4. Build and test a prototype. Document the strengths and weaknesses of the prototype in writing.
- \*5. Analyze and redesign to determine which solutions best meet the criteria and constraints.
- \*6. Communicate results in a variety of ways (e.g., orally, written, Internet publications, videos, posters, or product demonstrations).

### CHEMISTRY

#### High School

**Standard 1: Structure and Properties of Matter - All matter is made up of atoms. Its structure is made up of repeating patterns and has characteristic properties. The student will engage in investigations that integrate the process standards and lead to the discovery of the following objectives:**

- 1. Matter is made of atoms which are in constant motion. Atoms are composed of subatomic particles (e.g., protons, neutrons, electrons, quarks).
- 2. Atoms interact with one another by transferring or sharing outer electrons that are farthest from the nucleus. These outer electrons govern the chemical properties of the element.

## Priority Academic Student Skills

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3. When elements are listed in order by increasing numbers of protons, repeating patterns of physical and chemical properties identify families of elements with similar properties.
4. A compound is formed when two or more kinds of atoms bind together chemically.
  - a. Atoms interact with one another by transferring (ionic) or sharing (covalent) valence electrons.
  - b. Valence electrons govern the chemical properties and reactivity of the element.
  - c. Each compound has unique chemical and physical properties.

**Standard 2: Chemical Reactions - A chemical reaction is a reaction in which one or more substances are changed into different substances. A chemical change cannot be reversed by physical means. The student will engage in investigations that integrate the process standards and lead to the discovery of the following objectives:**

1. Chemical substances react in definite molar weight proportions and mass is conserved. Balanced chemical equations are used to determine molar ratios.
2. Chemical reactions can be classified (e.g., synthesis/combination, decomposition, single displacement, double displacement, combustion, oxidation/reduction, acid/base). Reaction classification aids in the prediction of products.
3. The rate of a chemical reaction is affected by the concentration and temperature of reactants and presence of a catalyst.

**Standard 3: Interactions of Energy and Matter – Total energy is conserved in a closed system. The student will engage in investigations that integrate the process and inquiry standards and lead to the discovery of the following objectives:**

1. Matter can be found in four phases (i.e., solid, liquid, gas, plasma). Phase change occurs when heat energy is absorbed or released from the system.
2. Chemical reactions in a system either release energy to the surroundings (exothermic) or absorb energy from the surroundings (endothermic), as a result of breaking or forming bonds between atoms.
3. The amount of heat gained or released during interactions (e.g., phase changes, chemical reactions, specific heat) can be quantified using calorimetric methods.
4. As energy varies in a closed system containing a gas, the parameters (i.e., volume, temperature, and pressure) are governed by specific laws (i.e., Avogadro's Law, Boyle's Law, Charles' Law, Dalton's Law, Ideal Gas Law).

## Priority Academic Student Skills

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**Standard 4: Solution chemistry – Solutions are homogenous mixtures of solutes dissolved in solvents. Most chemical reactions occur in solutions. The student will engage in investigations that integrate the process and inquiry standards and lead to the discovery of the following objectives:**

1. Dissolving rates can be influenced by conditions (e.g., temperature, surface area of solute, particle collisions, pressure concentration).
2. Solutions can be classified by the amount of solute dissolved by a solvent (i.e., unsaturated, saturated, supersaturated). Solution concentration can be quantified.

# Priority Academic Student Skills

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## PHYSICS

### High School

#### Standards for Inquiry and Physics

The *Priority Academic Student Skills (PASS)* should be taught by investigating content, concepts, and principles of major themes in Physics.

#### SCIENCE PROCESSES AND INQUIRY

**Process Standard 1: Observe and Measure - Observing is the first action taken by the learner to acquire new information about an object or event. Opportunities for observation are developed through the use of a variety of scientific tools. Measurement allows observations to be quantified. The student will accomplish these objectives to meet this process standard.**

1. Identify qualitative and quantitative changes given conditions (e.g., temperature, mass, volume, time, position, length) before, during, and after an event.
2. Use appropriate tools with accuracy and precision (e.g., metric ruler, graduated cylinder, thermometer, balance, spring scale, stopwatch, probeware, graphing calculators, digital cameras, computer simulations) when measuring objects and/or events.
3. Use appropriate International System of Units (SI) (i.e., grams, meters, liters, degrees Celsius, and seconds) and SI prefixes (i.e., micro-, milli-, centi-, and kilo-) when measuring objects and/or events.

**Process Standard 2: Classify - Classifying establishes order. Objects and events are classified based on similarities, differences, and interrelationships. The student will accomplish these objectives to meet this process standard.**

1. Using observable properties, place an object or event into a classification system.
2. Identify the properties by which a classification system is based.
3. Graphically classify physical relationships (e.g., linear, parabolic, inverse).

**Process Standard 3: Experimental Design - Understanding experimental design requires that students recognize the components of a valid experiment. The student will accomplish these objectives to meet this process standard.**



## Priority Academic Student Skills

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1. Evaluate the design of a physics experiment.
2. Identify the independent variables, dependent variables, controlled variables, and control in an experiment.
3. Use mathematics to show relationships within a given set of observations.
4. Identify a hypothesis for a given problem in physics investigations.
5. Recognize potential hazards and practice safety procedures in all physics activities.

**Process Standard 4: Interpret and Communicate - Interpreting is the process of recognizing patterns in collected data by making inferences, predictions, or conclusions. Communicating is the process of describing, recording, and reporting experimental procedures and results to others. Communication may be oral, written, or mathematical and includes organizing ideas, using appropriate vocabulary, graphs, other visual representations, and mathematical equations. The student will accomplish these objectives to meet this process standard.**

1. Select appropriate predictions based on previously observed patterns of evidence.
- \*2. Report and display data using appropriate using technology and other media.
3. Interpret data tables, line, bar, trend, and/or circle graphs from existing science research or student experiments.
4. Determine if results of physical science investigations support or do not support hypotheses.
5. Evaluate experimental data to draw the most logical conclusion.
- \*6. Routinely prepare a written report describing the sequence, results, and interpretation of a chemistry investigation or event.
  - a. Establish and maintain a formal style and objective tone.
  - b. When appropriate or possible, utilize technology to produce, publish, or revise writing products.
  - c. Gather relevant information from multiple authoritative print and digital sources and follow a standard format for citation, avoiding plagiarism.
- \*7. Communicate or defend scientific thinking that resulted in conclusions.

## Priority Academic Student Skills

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- a. Read, comprehend, and present evidence from a range of sources (e.g., texts, experiments, or simulations) to support conclusions.
  - b. Recognize bias in observation/research.
8. Identify and/or create an appropriate graph or chart from collected data, tables, or written description.
    - a. Translate quantitative information expressed in words into visual form (e.g., a table or chart).
    - b. Translate information expressed visually or mathematically (e.g., a table, chart, or equation) into words.

**Process Standard 5: Model - Modeling is the active process of forming a mental or physical representation from data, patterns, or relationships to facilitate understanding and enhance prediction. The student will accomplish these objectives to meet this process standard.**

1. Interpret a model which explains a given set of observations.
2. Select predictions based on models and when appropriate, apply mathematical reasoning to make accurate predictions.
- \*3. Compare a given model to the physical world.

**Process Standard 6: Inquiry - Inquiry can be defined as the skills necessary to carry out the process of scientific or systemic thinking. In order for inquiry to occur, students must have the opportunity to ask a question, formulate a procedure, and observe phenomena. The student will accomplish these objectives to meet this process standard.**

- \*1. Ask a scientific question, formulate a testable hypothesis, and design an appropriate experiment relating to the physical world.
- \*2. Design and conduct physics investigations in which variables are identified and controlled.
- \*3. Use a variety of technologies (e.g., hand tools, measuring instruments, computers, probeware, graphing calculators, digital cameras, digital balances, computer simulations) to collect, analyze, and display data).
- \*4. Inquiries should lead to the formulation of explanations or models (physical, conceptual, and mathematical). In answering questions, students should engage in discussions (based on scientific knowledge, the use of logic, and evidence from the

## Priority Academic Student Skills

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investigation) and arguments that encourage the revision of their explanations, leading to further inquiry.

**Process Standard 7: Engineering Design - Engineering design can be defined as the creative process of turning abstract ideas into a physical prototype (laboratory apparatus, trial product, model) that addresses a need or solves a problem. In order for engineering design to occur, students must have the opportunity to identify a need or problem, establish design criteria, prepare preliminary designs, build then test a prototype, and test and redesign as necessary. The student will accomplish these objectives to meet this process standard:**

- \*1. Identify a need or problem or improve an existing design.
- \*2. Identify design criteria and constraints (e.g., materials used, product limitations, time limits).
- \*3. Use a variety of resources (e.g., Internet, databases, text) to conduct research in order to develop a preliminary design.
- \*4. Build and test a prototype. Document the strengths and weaknesses of the prototype in writing.
- \*5. Analyze and redesign to determine which solutions best meet the criteria and constraints.
- \*6. Communicate results in a variety of ways (e.g., orally, written, Internet publications, videos, posters, product demonstrations).

### PHYSICS

#### High School

**Standard 1: Motion – The change in position of an object is motion. The student will engage in investigations that integrate the process standards and lead to the discovery of the following objectives:**

- 1. The motion of an object can be described by its position, direction, and speed.
- 2. Motion can be modeled in terms of 1- or 2-dimensions relative to a system's defined reference point (e.g., particle model, vector model, graphical model).
- 3. Objects undergoing acceleration can be mathematically modeled using time, displacement, velocity, and acceleration equations.

## Priority Academic Student Skills

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**Standard 2: Force - A change in motion occurs as a result of a net force. The student will engage in investigations that integrate the process standards and lead to the discovery of the following objectives:**

1. Objects change their motion due to a net force. Newton's Laws of Motion are used to calculate the effects of forces on the motion of objects (e.g., balanced vs. unbalanced forces, momentum, inertia, impulse, action vs. reaction, friction, torque).
2. Gravitation is a universal force that each object exerts on any other object. The strength of the gravitational attractive force between two objects is proportional to the masses and inversely proportional to the square of the distance between them (e.g., Law of Universal Gravitation, Kepler's Law).
3. The electric force is a universal force that exists between any two charged objects. The strength of the force is proportional to the charges and inversely proportional to the square of the distance between them (e.g., Coulomb's Law).
4. Electricity and magnetism are two aspects of a single electromagnetic force (e.g., series/parallel/complex circuits, electromagnets, induction, Ohm's Law, generators, motors, capacitors).

**Standard 3: Energy - The total energy of the universe is constant. The student will engage in investigations that integrate the process standards and lead to the discovery of the following objectives:**

1. Energy in a system is never created nor destroyed but may be transferred or transformed (e.g., Law of Conservation of Energy, Laws of Thermodynamics).
  - a. As changes occur, energy becomes less ordered.
  - b. Conservation of energy can be modeled (e.g., pendulum motion, spring system).
2. Energy can be classified as kinetic energy (energy of motion) or potential energy (e.g., positional, elastic, chemical, nuclear).

**Standard 4: Interactions of Energy and Matter – Energy interacts with matter and is transferred during these interactions. The student will engage in investigations that integrate the process standards and lead to the discovery of the following objectives:**

1. Heat is energy transferred due to temperature differences within a system. The amount of heat is also dependent on the mass and type of substances.
2. Transfer of energy and changes in wave properties (e.g., speed, amplitude, wavelength, frequency) may occur as waves and matter interact (e.g., reflection, refraction, diffraction, interference).

## Priority Academic Student Skills

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3. When work is done on an object, energy is transferred.
4. Machines change the force/distance ratios involved in doing work.
5. Power is the rate at which work is done.

# Priority Academic Student Skills

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## Environmental Science

### High School

#### Standards for Environmental Science

The *Priority Academic Student Skills (PASS)* should be taught by investigating content, concepts, and principles of major themes in Environmental Science.

#### SCIENCE PROCESSES AND INQUIRY

**Process Standard 1: Observe and Measure - Observing is the first action taken by the learner to acquire new information about an object or event. Opportunities for observation are developed through the use of a variety of scientific tools. Measurement allows observations to be quantified. The student will accomplish these objectives to meet this process standard.**

1. Identify qualitative and quantitative changes given conditions (e.g., temperature, mass, volume, time, position, length) before, during, and after an event.
2. Use appropriate tools (e.g., metric ruler, graduated cylinder, thermometer, balance, spring scale, stopwatch) when measuring objects and/or events.
3. Use appropriate International System of Units (SI) (i.e., grams, meters, liters, degrees Celsius, and seconds) and SI prefixes (i.e., micro-, milli-, centi-, and kilo-) when measuring objects and/or events.

**Process Standard 2: Classify - Classifying establishes order. Objects and events are classified based on similarities, differences, and interrelationships. The student will accomplish these objectives to meet this process standard.**

1. Using observable properties, place an object or event into a classification system.
2. Identify the properties by which a classification system is based.

**Process Standard 3: Experimental Design – Understanding experimental design requires that students recognize the components of a valid experiment. The student will accomplish these objectives to meet this process standard.**

1. Evaluate the design of an environmental experiment.
2. Identify the independent variables, dependent variables, controlled variables, and controls in an experiment.

## Priority Academic Student Skills

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3. Use mathematics to show relationships within a given set of observations.
4. Identify a hypothesis for a given problem in environmental investigations.
5. Recognize potential hazards and practice safety procedures in all environmental activities.

**Process Standard 4: Interpret and Communicate - Interpreting is the process of recognizing patterns in collected data by making inferences, predictions, or conclusions. Communicating is the process of describing, recording, and reporting experimental procedures and results to others. Communication may be oral, written, or mathematical and includes organizing ideas, using appropriate vocabulary, graphs, other visual representations, and mathematical equations. The student will accomplish these objectives to meet this process standard.**

1. Select appropriate predictions based on previously observed patterns of evidence.
- \*2. Report and display data using appropriate technology and other media.
3. Interpret data tables, line, bar, trend, and/or circle graphs from existing research or student experiments.
4. Determine if results of environmental science investigations support or do not support hypotheses.
5. Evaluate experimental data to draw the most logical conclusion.
- \*6. Routinely prepare a written report describing the sequence, results, and interpretation of an environmental investigation or event.
  - a. Establish and maintain a formal style and objective tone.
  - b. When appropriate or possible, utilize technology to produce, publish, or revise writing products.
  - c. Gather relevant information from multiple authoritative print and digital sources and follow a standard format for citation, avoiding plagiarism.
- \*7. Communicate or defend scientific thinking that resulted in conclusions.
  - a. Read, comprehend, and present evidence from a range of sources (e.g. texts, experiments, or simulations) to support conclusions.
  - b. Recognize bias in observation/research.

## Priority Academic Student Skills

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8. Identify and/or create an appropriate graph or chart from collected data, tables, or written description.
  - a. Translate quantitative information expressed in words into visual form (e.g. a table or chart).
  - b. Translate information expressed visually or mathematically (e.g. a table, chart, or equation) into words.

**Process Standard 5: Model - Modeling is the active process of forming a mental or physical representation from data, patterns, or relationships to facilitate understanding and enhance prediction. The student will accomplish these objectives to meet this process standard.**

1. Interpret a model which explains a given set of observations.
2. Select predictions based on models, and when appropriate, apply mathematical reasoning to make accurate predictions.
- \*3. Compare a given model to the physical world.

**Process Standard 6: Inquiry - Inquiry can be defined as the skills necessary to carry out the process of scientific or systemic thinking. In order for inquiry to occur, students must have the opportunity to ask a question, formulate a procedure, and observe phenomena. The student will accomplish these objectives to meet this process standard.**

- \*1. Ask a scientific question, formulate a testable hypothesis and design an appropriate experiment relating to the physical world.
- \*2. Design and conduct environmental investigations in which variables are identified and controlled.
- \*3. Use a variety of technologies, (e.g., hand tools, measuring instruments, computers, handheld digital devices, digital cameras, software, calculators, digital balances, microscopes, measuring instruments and computers) to collect, analyze, and display data).
- \*4. Inquiries should lead to the formulation of explanations or models (physical, conceptual, and mathematical). In answering questions, students should engage in discussions (based on scientific knowledge, the use of logic, and evidence from the investigation) and arguments that encourage the revision of their explanations, leading to further inquiry.



# Priority Academic Student Skills

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## Environmental Science

### High School

**Standard 1: The Physical Earth system – The Physical Earth system is determined by dynamic and static processes revealed through investigations of the geosphere, atmosphere, and hydrosphere. These interrelated processes are large-scale and long-term characteristics of the Earth that require knowledge of energy and matter. The student will engage in investigations that integrate the process standards and lead to the discovery of the following objectives:**

1. Composition and structure of the Earth is affected by an interaction of processes and events.
  - a. Geologic processes affect the Earth over time (e.g., plate tectonics, erosion).
  - b. Atmospheric processes affect the Earth over time (e.g., changes in daily weather conditions, convection/conduction/radiation, greenhouse effect, climate trends).
  - c. Hydrologic processes affect the Earth over time (e.g., water cycle, ocean currents, ground water transport).
  - d. Earth’s current structure has been influenced by both sporadic and gradual events.
2. Natural systems require a certain amount of energy input to maintain their organization (i.e., Laws of Thermodynamics).

**Standard 2: The Living Earth System – The living environment is comprised of interrelated, dynamic systems of the biosphere. The student will engage in investigations that integrate the process standards and lead to the discovery of the following objectives:**

1. The biosphere can be examined at several levels (e.g., biome, ecosystem, community, population, species, organism).
2. Ecosystems are composed of biotic and abiotic factors. Matter and energy move between these factors.
3. Energy flows through ecosystems from the sun to producers to consumers (e.g., photosynthesizers, chemoautotrophs).
4. Matter flows through biogeochemical cycles (i.e., carbon, nitrogen, phosphorus, water).

## Priority Academic Student Skills

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5. Cycling of matter and the flow of energy are governed by the Laws of Conservation of Matter and Energy.

**Standard 3: Populations – A population is a group of naturally-interbreeding individuals of one species, living in a defined area, and usually isolated to some degree from similar groups. Populations are dynamic: they increase, decrease, or stabilize depending on their interactions with other populations and with their environment. The student will engage in investigations that integrate the process standards and lead to the discovery of the following objectives:**

1. Organisms and populations both cooperate and compete in ecosystems and/or habitats for resources (e.g., symbiotic relationships, limiting factors).
2. Mutation and environmental selective pressures may result in adaptations which may enhance or limit the survival and reproductive success in a particular environment (e.g., changes in structures, behaviors, diversity).
3. Each population has specific properties including size, density, and pattern of dispersion (e.g., carrying capacity and exponential growth).

**Standard 4: Natural Resources – Natural resources are raw materials and energy obtained or derived from the environment. The student will engage in investigations that integrate the process and inquiry standards and lead to the discovery of the following objectives:**

1. Natural resources are classified as renewable or nonrenewable.
  - a. Only a small fraction of Earth’s water supply is available for human use.
  - b. Soil conservation methods are important for protecting and managing topsoil and reducing erosion.
  - c. Fossil fuels (coal, oil, natural gas) are carbon containing molecules that take millions of years to form. Reserves are being depleted much faster than new ones are being made.
2. Pollution is an undesired change in air, water, or soil that adversely affects the health, survival, or activities of organism (e.g., temperature inversion, pH changes, organic and inorganic substances).
3. Alternative energy sources include wind power, active and passive solar power, geothermal power, and biomass power.

## Priority Academic Student Skills

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**Standard 5: Environment and Society – Environmental perspective encompasses how one thinks society works in relation to environmental issues, what one believes the environmental world should be, and what is ethical environmental behavior. Sustainability is a long-term process to maintain a quality environment for future generations. The student will engage in investigations that integrate the process standards and lead to the discovery of the following objectives:**

1. As human populations and their consumption levels increase, it becomes more difficult to sustain environmental quality.
2. Environmental issues can be described in terms of qualitative and quantitative costs and benefits for different groups of people and specific species or ecosystems (e.g., oil spills, energy consumption, invasive species, natural disasters).
3. People are capable of reducing and reversing their impact on the environment because they can think, plan, and educate.
  - a. Governments develop policies to address environmental problems and establish agencies to implement those policies.
  - b. Individuals and groups have the ability and responsibility to help maintain environmental quality and resolve environmental problems and issues.
  - c. A variety of methods are used to analyze the sustainability of current trends in world population growth and natural resource consumption (e.g., carrying capacity, ecological footprints).



# SOCIAL STUDIES

OKLAHOMA  
**ACADEMIC**  
STANDARDS



**OKLAHOMA**

STATE DEPARTMENT *of* EDUCATION

— JOY HOFMEISTER —

STATE SUPERINTENDENT *of* PUBLIC INSTRUCTION

NOTE: The Social Studies subject standards were last revised in 2012. These standards contain references to the Common Core Social Studies reading and writing literacy skills. In 2014, House Bill 3399 repealed Common Core standards for Oklahoma. By operation of law, the references to Common Core in the Social Studies subject standards are no longer in effect, but all other elements of the standards apply in their entirety.



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# The Use of Coherency Storylines in the Development of Social Studies Standards of Learning and Curriculum Frameworks: Adding Unity, Specificity, and Transcendency to Social Studies Curricular Decisions

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## ■ Coherency Storylines

Coherency Storylines have been used for the first time in Oklahoma in designing the *Oklahoma Academic Standards for the Social Studies*. Coherency Storylines are a set of *storylines* selected to advance and develop the telling of a *curriculum story*. Coherency Storylines are very fine-grained *curriculum threads* that elaborate, illuminate, and illustrate a larger subject strand such as *Economic Opportunity in United States History*. Coherency Storylines may be used within a single grade level or course, across a grade band, within the spectrum of a multi-grade level subject like United States history, and/or across the entire curriculum framework Pre-K–12.

The purpose of Coherency Storylines is to provide a structure to design a curriculum framework. Coherency Storylines are more specific in nature than strands such as geography, history, etc. and finer-grained than content themes like *Power, Authority, and Governance*. They function as true curriculum threads within a discipline strand (history, geography, etc.), as well as the across the several social studies disciplines strands. They can be made very finely focused and even be thought of as *curriculum fibers*. Curriculum fibers when woven by purposeful design comprise a coherent curriculum strand. Coherency Storylines act as a *plumb line* by which the placement of Social Studies content expectations within the curriculum framework can be more objectively selected or omitted.

Coherency Storylines give *unity of story* within subject disciplines, strands, and courses. Coincidentally, Coherency Storylines allow transcendency of story across themes, strands, and the entire curriculum framework Pre-K–12. Coherency Storylines are threads that provide color, weave, and texture to the curriculum fabric. Taking the analogy of curriculum as a fabric, we can illustrate the concept by asserting that the Coherency Storylines function by giving function, pattern, and unity of design to the curriculum framework. They give purpose to the curriculum stories within and across grade levels and multi-grade content; and provide a *transcendency of design*.

An example of this is the Coherency Storyline of *Foundations, Formations, and Transformations of the American System* within United States History. This Coherency Storyline spans the U.S. History curriculum in Grade 5, Grade 8, and High School. This Coherency Storyline, when pulled through those three distinct parts of the U.S. history curriculum provides a plumb line by which specific U.S. history content may be included or excluded. The Coherency Storyline guides content selection based upon the discussion and decision of whether it *develops* the storyline or *distracts* from the storyline. This thread should be more finely focused only on the political aspects or the economic features of the American system making them a curriculum fiber, or these two fibers can be combined for a more specific Coherency Storyline bi-focus thereby creating a coherent strand.

This Coherency Storyline could function in the lower elementary level to introduce early learners to American civics and history topics like notable Americans, to guide the selection of high-interest non-fiction reading series of foundational, formational, and transformational events in American history, or even the selection of basic domain specific vocabulary terms. Additionally, this Coherency Storyline could guide the selection in the lower elementary grades of national symbols, national historic landmarks, national parks, patriotic music, and national holidays/observances.

What is essential in the use of Coherency Storylines is the parameter descriptor. The Coherency Storyline's purpose needs to be focused and tightly designed. It should tell specifically the kinds of content to be associated with the Coherency Storyline and what cannot be used as it would cause the Coherency Storyline to diverge from its storyline. Content expectation should be held to the standard of "Was the event, person, group, document, etc. *significant and key* to the founding of the nation, to the formation of the nation, and in the continuing transformation of the nation?" The main consideration to answer is "*Was this person or event systemic changing?*" If the specific content was key and significant, then it should be very seriously considered for inclusion in the standards/framework as it helps develop the historic storyline. Conversely, if it did not lead to system-wide change(s), then it should not be included as it is probably minor in comparison. It most likely distracts from the primary storyline. With that in mind, individuals, groups, events, documents, etc. may be interesting to study in their own right *but* should be included only for their significant and key impact upon the American system. To include any interesting person just because the standards do not have a person from a particular "demographic group" is insufficient cause for inclusion because it is *gratuitous inclusion*. It results in a weakened historic narrative. The use of

Coherency Storylines elevates the decision-making process to one of significance and relevance.

To follow this line of design reasoning, consider the following: in the formation and transformation of the United States, many treaties could be included in the curriculum framework. Treaties often covered several topics but often served a particular purpose such as the cessation of fighting, settling territorial disputes, trade rights, etc. Look at the top two treaties included in Figure 1.

Now, a series of questions need to be considered to help determine if this specific content should be added to the framework.

- In what ways was each event systemic changing?
- Should both treaties be included in the framework?
- Should both be excluded?
- Should one be included and the other excluded?
- If so which one?
- Why?

The decision should be justifiable with historic reasoning as to why the selected content was systemic changing.

Since the focus of the Coherency Storyline is the political foundation, formation, and transformation of the American system, the Louisiana Purchase of 1803 would be very appropriate, whereas the Kellogg-Briand Pact of 1928 would not be nearly as appropriate as all major signators were at war with each other within a decade.

Consider the topic of events and treaties relating to the American Indian experience. There are so many treaties with all of the tribes spanning American history that selecting appropriate treaties is a real curriculum content challenge. Taking the line of reasoning from above and using Figure 1, which one should be included to support the primary storyline—the *Indian Removal Act of 1830* or the *Treaty of Dancing Rabbit Creek*? Many scholars would say that since the *Indian Removal Act* was

the primary basis for all subsequent land cessions and removal treaties with the numerous American Indian nations that it was the signature transformative event in changing the American system for both whites and the American Indian nations.

Based upon the use of the Coherency Storyline, the committee literally came to the conclusion as illustrated in Figure 2.

## ■ The Primary Coherency Storyline for the Oklahoma Academic Standards for the Social Studies

The Coherency Storyline, *The Foundation, Formation, and Transformation of the American System – Politically and Economically*, is THE storyline for the entire Social Studies framework as it operates as a plumb line that pulls the entire curriculum framework towards the goal of developing literate citizens. It provides unity of story for the entire framework and focuses on key ideas, events, people, groups, and concepts that laid the foundations for the 13 British colonies becoming the United States. This primary Coherency Storyline gives transcendence of the narrative across the grade levels and across the several social studies disciplines of History, Civics/Government, Geography, and Economics. This Coherency Storyline provides purpose, pattern, and unity of design to the entire *Oklahoma Academic Standards for the Social Studies* framework. The Coherency Storyline will be spun into a tighter “curriculum thread” by adding focused specificity through a bi-focus on the foundation, formation, and transformation of the American political and economic systems. This bi-focus does not preclude the strand of geography as historic geography is a presumed part of the historic narrative. The bi-focus on the political and economic systems does not ignore the social development of the 13 original British colonies, the beginning American nation, and country as it grew and changed over the past 400 plus years. In fact, political events, developments, and decisions had social implications and impact. The same is true in the economic realm.



Figure 1



Figure 2



## ► Pre-Kindergarten SOCIAL STUDIES *Our America*

In Pre-Kindergarten, students begin to understand the foundations of the social studies strands; history, geography, civics, citizenship, and economics. Students begin their introduction to the United States through the study of American symbols and holidays. Civics provides students with an introduction to rules, traits, and responsibilities of citizenship. Basic economic concepts and their underlying principles as seen in the community are also introduced. Basic concepts of cultural and physical geography are presented.

**The Social Studies Process and Literacy Skills (PALS) are to be integrated throughout the Pre-Kindergarten content standards and methods of instructional delivery.**

### PROCESS AND LITERACY SKILLS (PALS) FOR LEARNING

**Process and Literacy  
Skills Standard 1: The student will develop and demonstrate Common Core informational text reading literacy skills.**

- A. Key Ideas and Details
  1. With prompting and support, ask and answer questions about key details in a text.
  2. With prompting and support, identify the main topic and retell key details of a text.
  3. With prompting and support, describe the connection between two individuals, events, ideas, or pieces of information in a text.
- B. Craft and Structure
  4. With prompting and support, ask and answer questions about unknown words in a text.
- C. Integration of Knowledge and Ideas
  7. With prompting and support, describe the relationship between illustrations and the text in which they appear (e.g., what person, place, thing, or idea in the text an illustration depicts).
  9. With prompting and support, identify basic similarities in and differences between two texts on the same topic (e.g., in illustrations, descriptions, or procedures).

### Process and Literacy

**Skills Standard 2: The student will develop and demonstrate Common Core writing literacy skills.**

#### A. Text Types and Purposes

1. Use a combination of drawing, dictating, and writing to compose opinion pieces in which they tell a reader the topic or the name of the book they are writing about and state an opinion or preference about the topic or book (e.g., “My favorite American symbol or holiday is . . .”).
2. Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic.
3. Use a combination of drawing, dictating, and writing to narrate a single event or several loosely linked events, tell about the events in the order in which they occurred, and provide a reaction to what happened.

#### B. Production and Distribution of Writing

6. With guidance and support from adults, explore a variety of digital tools to produce and publish writing, including in collaboration with peers.

#### C. Research to Build and Present Knowledge

8. With guidance and support from adults recall information from experiences or gather information from provided sources to answer a question.

**Process and Literacy Skills Standard 3: The student will develop and demonstrate Common Core speaking and listening skills.**

#### A. Comprehension and Collaboration

1. Participate in collaborative conversations with diverse partners about Pre-Kindergarten Our America topics and texts with peers and adults in small and larger groups.
2. Confirm understanding of a social studies text read aloud or information presented orally or through other media by asking and answering questions about key details and requesting clarification if something is not understood.

#### B. Presentation of Knowledge and Ideas

4. Describe familiar people, places, things, and events and, with prompting and support, provide additional detail.
5. Add social studies focused drawings or other visual displays to descriptions as desired to provide additional detail.

## SOCIAL STUDIES CONTENT SKILLS

### Citizenship Literacy

**Content Standard 1: The student will exhibit traits of good citizenship.**

1. Recognize the importance of rules and responsibilities as a member of the family, class, and school.
2. Identify the United States Flag as a symbol of the country including the learning of *The Pledge of Allegiance* and practicing appropriate flag etiquette.

### Economic Literacy

**Content Standard 2: The student will identify basic economic concepts.**

1. Explain how various community people including police officers, firefighters, soldiers, school personnel, business professionals, and medical personnel impact his/her life.
2. Explain the relationship between work and earning money.
3. Describe the basic needs of food, clothing, and shelter that are common to all people.

### Geography Literacy

**Content Standard 3: The student will demonstrate knowledge of basic physical and human geographic concepts.**

1. Explain that a map is a drawing of a place and the globe is a model of Earth.
2. Locate the United States on a world map and a globe.
3. Identify the state of Oklahoma on a map of the United States.
4. Describe family customs and traditions as basic elements of culture.

### History Literacy

**Content Standard 4: The student will understand that history relates to events and people of other times and places.**

1. Recognize that commemorative holidays honor people and events of the past including Columbus Day, Veterans Day, Thanksgiving Day, Washington's Birthday, and Independence Day.
2. Identify important American symbols and explain their meanings including United States Flag, the Bald Eagle, the Statue of Liberty, and the Liberty Bell.
3. Use words and phrases related to chronology and time to explain how things change including before/after and today/tomorrow/yesterday.

## ▶ Kindergarten SOCIAL STUDIES *Symbols of America*

In Kindergarten, students continue their understanding of the foundations of the social studies strands: history, geography, civics, citizenship, and economics. Students continue their examination of American symbols and holidays. Concepts of cultural and physical geography are developed. Civics provides students with a continued study of the traits of citizenship. Basic economic concepts are also introduced.

**The Social Studies Process and Literacy Skills (PALS) are to be integrated throughout the Kindergarten content standards and methods of instructional delivery.**

### PROCESS AND LITERACY SKILLS (PALS) FOR LEARNING

#### Process and Literacy Skills Standard 1: The student will develop and demonstrate Common Core informational text reading literacy skills.

- A. Key Ideas and Details
  1. With prompting and support, ask and answer questions about key details in a text.
  2. With prompting and support, identify the main topic and retell key details of a text.
  3. With prompting and support, describe the connection between two individuals, events, ideas, or pieces of information in a text.
- B. Craft and Structure
  4. With prompting and support, ask and answer questions about unknown words in a text.
- C. Integration of Knowledge and Ideas
  7. With prompting and support, describe the relationship between illustrations and the text in which they appear (e.g., what person, place, thing, or idea in the text an illustration depicts).
  9. With prompting and support, identify basic similarities in and differences between two texts on the same topic (e.g., in illustrations, descriptions, or procedures).

#### Process and Literacy

#### Skills Standard 2: The student will develop and demonstrate Common Core writing literacy skills.

- A. Text Types and Purposes
  1. Use a combination of drawing, dictating, and writing to compose opinion pieces in which they tell a reader the topic or the name of the book they are writing about and state an opinion or preference about the topic or book (e.g., “My favorite American symbol or holiday is . . .”).
  2. Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic.
  3. Use a combination of drawing, dictating, and writing to narrate a single event or several loosely linked events, tell about the events in the order in which they occurred, and provide a reaction to what happened.
- B. Production and Distribution of Writing
  6. With guidance and support from adults, explore a variety of digital tools to produce and publish writing, including in collaboration with peers.
- C. Research to Build and Present Knowledge
  8. With guidance and support from adults recall information from experiences or gather information from provided sources to answer a question.

#### Process and Literacy

#### Skills Standard 3: The student will develop and demonstrate Common Core speaking and listening skills.

- A. Comprehension and Collaboration
  1. Participate in collaborative conversations with diverse partners about Kindergarten Symbols of America topics and texts with peers and adults in small and larger groups.
  2. Confirm understanding of a social studies text read aloud or information presented orally or through other media by asking and answering questions about key details and requesting clarification if something is not understood.
- B. Presentation of Knowledge and Ideas
  4. Describe familiar people, places, things, and events and, with prompting and support, provide additional detail.
  5. Add social studies focused drawings or other visual displays to descriptions as desired to provide additional detail.

## SOCIAL STUDIES CONTENT SKILLS

### Civics Citizenship Literacy

**Content Standard 1: The student will exhibit traits of good citizenship.**

1. Recognize the importance of rules and responsibilities as a member of the family, class, and school.
2. Identify the United States Flag as a symbol of the country including learning *The Pledge of Allegiance* and practicing appropriate flag etiquette.

### Economics Literacy

**Content Standard 2: The student will identify basic economic concepts.**

1. Explain how various community people including police officers, firefighters, soldiers, school personnel, business professionals, and medical personnel impact his/her life.
2. Explain the relationship between work and earning money.
3. Describe the basic needs of food, clothing, and shelter that are common to all people.

### Geography Literacy

**Content Standard 3: The student will demonstrate knowledge of basic physical and human geographic concepts.**

1. Explain that a map is a drawing of a place and the globe is a model of Earth.
2. Locate the United States on a world map and a globe.
3. Identify the state of Oklahoma on a map of the United States.
4. Describe family customs and traditions as basic elements of culture.

### History Literacy

**Content Standard 4: The student will understand that history relates to events and people of other times and places.**

1. Recognize that commemorative holidays honor people and events of the past including Columbus Day, Veterans Day, Thanksgiving Day, Martin Luther King, Jr. Day, Washington's Birthday, Flag Day, and Independence Day.
2. Identify important American symbols and explain their meanings including United States Flag, the Bald Eagle, the Statue of Liberty, and the Liberty Bell.
3. Use words and phrases related to chronology and time to explain how things change including before/after, past/present/future, and today/tomorrow/yesterday.

## ▶ Grade 1 SOCIAL STUDIES *American Heroes*

In First grade, students continue their study of the United States history through the contributions of notable historic figures. In the civics strand the student will learn characteristics and responsibilities of good citizenship. In the geography strand students explore basic geographic concepts. The economic strand continues the development of understanding basic economic concepts.

**The Social Studies Process and Literacy Skills (PALS) are to be integrated throughout the Grade 1 content standards and methods of instructional delivery.**

### PROCESS AND LITERACY SKILLS (PALS) FOR LEARNING

**Process and Literacy Skills Standard 1: The student will develop and demonstrate Common Core informational text reading literacy skills.**

#### A. Ideas and Details

1. Ask and answer questions about key details in a text.
2. Identify the main topic and retell key details of a text.
3. Describe the connection between two individuals, events, ideas, or pieces of information in a text.

#### B. Text and Structure

4. Ask and answer questions to help determine or clarify the meaning of words and phrases in a text.
5. Know and use various text features (e.g., headings, tables of contents, glossaries, electronic menus, icons) to locate key facts or information in a text.
6. Distinguish between information provided by pictures or other illustrations and information provided by the words in a text.

#### C. Integration of Knowledge and Ideas

7. Use the illustrations and details in a text to describe its key ideas.
9. Identify basic similarities in and differences between two texts on the same topic (e.g., in illustrations, descriptions, or procedures).

**Process and Literacy Skills Standard 2: The student will develop and demonstrate Common Core writing literacy skills.**

#### A. Text Types and Purposes

1. Write opinion pieces in which they introduce the topic they are writing about, state an opinion, supply a reason for the opinion, and provide some sense of closure.
2. Write informative/explanatory texts in which they name a topic, supply some facts about the topic, and provide some sense of closure.
3. Write narratives in which they recount two or more appropriately sequenced events, include some details regarding what happened, use temporal words to signal event order, and provide some sense of closure.

#### B. Production and Distribution of Writing

6. With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers.

#### C. Research to Build and Present Knowledge

7. Participate in shared research and writing projects (e.g., write a short step by step sequence of instructions for proper flag etiquette and/or proper behavior during the national anthem).
8. With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.

### Process and Literacy

**Skills Standard 3: The student will develop and demonstrate Common Core speaking and listening skills.**

#### A. Comprehension and Collaboration

1. Participate in collaborative conversations with diverse partners about Grade 1 American Heroes topics and texts with peers and adults in small and larger groups.
2. Ask and answer questions about key details in a social studies text read aloud or information presented orally or through other media.

#### B. Presentation of Knowledge and Ideas

4. Describe social studies related people, places, things, and events with relevant details, expressing ideas clearly.
5. Add social studies focused drawings or other visual displays to descriptions when appropriate to clarify ideas, thoughts, and feelings.

## SOCIAL STUDIES CONTENT SKILLS

### Citizenship Literacy

#### Content Standard 1: The student will analyze his/her role as a citizen in a community.

1. Identify the main purpose of government, its rules and laws including the concept of consequences for one's actions when a law or rule is violated. (CCRIT 2)
2. Participate in patriotic traditions including the recitation of *The Pledge of Allegiance*, the singing of *My Country 'Tis of Thee*, and demonstration of appropriate flag etiquette and proper behavior during the playing of the national anthem.
3. Identify important American symbols and explain their meanings including United States Flag, the Bald Eagle, the Statue of Liberty, and the Liberty Bell.
4. Describe how historic figures display character traits of fairness, respect for others, stewardship of natural resources, courage, equality, hard work, self-discipline, and commitment to the common good.
5. Describe relationships between people and events of the past which are commemorated on Columbus Day, Veterans Day, Thanksgiving Day, Martin Luther King, Jr. Day, Washington's Birthday, Lincoln's Birthday, Flag Day, and Independence Day. (CCRIT 3)

### Economics Literacy

#### Content Standard 2: The student will describe the characteristics of the American economic system.

1. Summarize the need for money, how money is earned, and how money and credit are used in order to meet needs and wants including the costs and benefits of spending and saving. (CCRIT 2)
2. Define and explain the roles of consumers and producers in the American economy.
3. Summarize how historic inventors and entrepreneurs contributed to the prosperity of the nation including Samuel F. B. Morse, John Deere, Alexander Graham Bell, Orville and Wilbur Wright, and Thomas Edison. (CCRIT 2)

### Geography Literacy

#### Content Standard 3: The student will demonstrate knowledge of basic geographic concepts.

1. Define and compare the physical features of urban and rural communities.
2. Construct maps and identify cardinal directions of north, south, east, and west, and identify locations on the map of their community, Oklahoma, and the United States.
3. Locate on a map and globe the United States, the seven continents, and five oceans.

### History Literacy

#### Content Standard 4: The student will examine important events and historic figures in the nation's past.

1. Understand chronological sequencing of events by creating basic timelines. (CCRIT 5)
2. Participate in shared research using biographies and informational text the contributions of historic figures in American history including Squanto, the Pilgrims, George Washington, Benjamin Franklin, Paul Revere, Thomas Jefferson, Meriwether Lewis, William Clark, Sacagawea, Daniel Boone, Abraham Lincoln, and George Washington Carver. (CCW 7)
3. Identify the significance of historic places and monuments and describe their connection to real events of the past including the Plimoth Plantation, Mount Vernon, Washington Monument, Lincoln Memorial. (CCRIT 3)
4. Commemorate the contributions to the American nation of significant groups including National Hispanic History Month, Native American Heritage Month, and Black History Month.

## ▶ Grade 2 SOCIAL STUDIES *Our Democratic Heritage*

Second grade students conclude their introduction to the United States in the citizenship strand through the study of the foundation of the American republic. The historic strand introduces selected Americans who have been important in securing and ensuring their rights. The geography strand develops the students' understanding of the nation's physical and political features. The economic strand continues a more advanced understanding of economic concepts.

**The Social Studies Process and Literacy Skills (PALS) are to be integrated throughout the Grade 2 content standards and methods of instructional delivery.**

### PROCESS AND LITERACY SKILLS (PALS) FOR LEARNING

**Process and Literacy Skills Standard 1: The student will develop and demonstrate Common Core informational text reading literacy skills.**

#### A. Key Ideas and Details

1. Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.
2. Identify the main topic of a multi-paragraph text (e.g., primary or secondary sources) as well as the focus of specific paragraphs within the text.
3. Describe the connection between a series of historic events or social studies concepts.

#### B. Craft and Structure

4. Determine the meaning of words and phrases in a social studies text.
5. Know and use various text features (e.g., maps, graphs, charts captions, bold print, subheadings, glossaries, indexes, electronic menus, and icons) to locate key facts or information in a text efficiently.
6. Identify the main purpose of a text, including what the author wants to answer, explain, or describe in primary and secondary informational texts.

#### C. Integration of Knowledge and Ideas

7. Explain how specific images (e.g., a diagram, landforms, satellite photos, maps, and charts) contribute to and clarify a text.
9. Compare and contrast the most important points presented by two texts on the same topic.

### Process and Literacy

**Skills Standard 2: The student will develop and demonstrate Common Core writing literacy skills.**

#### A. Text Types and Purposes

1. Write opinion pieces in which they introduce the topic they are writing about, state an opinion, supply reasons that support the opinion, use linking words to connect opinion and reasons, and provide a concluding statement or section.
2. Write informative/explanatory texts in which they introduce a topic, use facts and definitions to develop points, and provide a concluding statement or section.
3. Write narratives in which they recount a sequence of events, include details to describe actions, thoughts, and feelings, use temporal words to signal event order (e.g., cause and effect relationships), and provide a sense of closure.

#### B. Production and Distribution of Writing

6. With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers.

#### C. Research to Build and Present Knowledge

7. Participate in shared research and writing projects (e.g., primary and secondary sources on a single topic).
8. Recall information from experiences or gather information from provided sources to answer a question.

### Process and Literacy

**Skills Standard 3: The student will develop and demonstrate Common Core speaking and listening skills.**

#### A. Comprehension and Collaboration

1. Participate in collaborative conversations with diverse partners about Grade 2 Our Democratic Heritage topics and texts with peers and adults in small and larger groups.
2. Recount or describe key ideas or details from a social studies text read aloud or information presented orally or through other media.
3. Ask and answer questions about what a speaker says in order to clarify comprehension, gather additional information, or deepen understanding of a social studies topic or issue.

**B. Presentation of Knowledge and Ideas**

4. Tell a social studies related story with appropriate facts and relevant, descriptive details, and speaking audibly in coherent sentences.
5. Create audio recordings of social studies stories or poems; add drawings or other visual displays to stories or recounts of experiences when appropriate to clarify ideas, thoughts, and feelings.

**CONTENT SKILLS****Citizenship Literacy**

**Content Standard 1: The student will explain the importance of the basic principles that provide the foundation of the American system of government.**

1. Summarize the five key individual rights and liberties protected by the *First Amendment* to the *United States Constitution*. (CCRIT 2)
2. Identify the basic roles of national leaders including the President of the United States and the members of the United States Congress.
3. Identify important American symbols and explain their meanings including United States Flag, the Bald Eagle, the Statue of Liberty, Lady Justice, and the Liberty Bell.
4. Participate in patriotic traditions including the recitation of *The Pledge of Allegiance* and singing of *The Star Spangled Banner*, and demonstrate proper flag etiquette and appropriate behavior during both.
5. Describe relationships between people and events of the past which are commemorated on Columbus Day, Veterans Day, Thanksgiving Day, Martin Luther King, Jr. Day, Washington's Birthday, Lincoln's Birthday, Flag Day, and Independence Day. (CCRIT 3)

**Economics Literacy**

**Content Standard 2: The student will understand basic economic concepts in the American economy.**

1. Describes ways people are paid for their labor and how goods and services are purchased through means like check, cash, and credit cards, and provide examples of interdependence through trade/barter and purchase.
2. Describe the connection between taxes and community services including schools, sanitation and water, fire and police protection, libraries, and roads. (CCRIT 3)

**Geography Literacy**

**Content Standard 3: The student will examine how humans modify their environment.**

1. Construct basic maps using legends, scale, and intermediate directions including the introduction of latitude and longitude and the division of the Earth into four hemispheres.
2. Identify basic natural landforms and bodies of water and man-made environments including examples found in the community and the United States: plains, mountains, peninsulas, and islands; rivers, lakes, oceans, seas, gulfs, bays, and harbors; and highways, cities, airports, and railroads.
3. Locate on a physical map of the United States the major natural features including the Mississippi River, Colorado River, Rio Grande, Great Lakes, Rocky and Appalachian Mountain Ranges, the Great Plains, the Atlantic and Pacific Oceans, and the Gulf of Mexico.
4. Locate on a political map of the United States the state of Oklahoma and the six bordering states, and the major cities of Washington, D.C., New York City, Los Angeles, and Chicago.

**History Literacy**

**Content Standard 4: The student will examine the lives of notable Americans who expanded peoples' rights and freedoms in the American system of government.**

1. Participate in shared and individual research using biographies and informational text historic examples of honesty, courage, patriotism, self-sacrifice, and other admirable character traits seen in citizens and leaders including Abigail Adams, Francis Scott Key, Harriet Tubman, Abraham Lincoln, Chief Joseph, Eleanor Roosevelt, Fred Korematsu, Jackie Robinson, Dr. Martin Luther King, Jr., Rosa Parks, César Chávez, and Senator Daniel Inouye. (CCW 7)
2. Analyze the significance of historic places including the White House, the United States Capitol, the United States Supreme Court, the Washington Monument, and the Lincoln Memorial.
3. Commemorate months designated to the contributions the American nation of significant groups to the history of including National Hispanic History Month, Native American Heritage Month, Black History Month, Women's History Month, and Asian-Pacific American Heritage Month.
4. Understand chronological sequencing and the connection between historic events and individuals through the creation of basic timelines. (CCRIT 3)



## ▶ Grade 3 SOCIAL STUDIES *Oklahoma Studies*

In the third grade, students begin a focused study of the state of Oklahoma. The historic strand introduces selected Oklahomans who have been important in the development of the state and creates an appreciation for the many peoples who have settled in Oklahoma. In the geography strand students explore the physical and political features of the state including its natural resources. In civics students examine the structure of local governments and the state government. In the economic strand students explore how Oklahomans have used their natural resources to create a prosperous and growing economy.

**The Social Studies Process and Literacy Skills (PALS) are to be integrated throughout the Grade 3 content standards and methods of instructional delivery.**

### PROCESS AND LITERACY SKILLS (PALS) FOR LEARNING

**Process and Literacy  
Skills Standard 1: The student will develop and demonstrate Common Core informational text reading literacy skills.**

#### A. Key Ideas and Details

1. Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.
2. Determine the main idea of a text; recount the key details and explain how they support the main idea.
3. Describe the relationship between a series of historic events or social studies concepts, using language that pertains to time, sequence, and cause/effect.

#### B. Craft and Structure

4. Determine the meaning of general academic and social studies domain-specific words and phrases in a text relevant to Grade 3 Oklahoma Studies.
5. Use text features and search tools (e.g., timelines, maps, charts, graphs, images, artwork, photographs, key words, sidebars, hyperlinks) to locate information relevant to a given topic.
6. Distinguish their own point of view from that of the author of a primary or secondary text.

#### C. Integration of Knowledge and Ideas

7. Use information gained from illustrations (e.g., maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur).
8. Describe the logical connection between particular sentences and paragraphs in a text (e.g., comparison, cause/effect, first/second/third in a sequence).
9. Compare and contrast the most important points and key details presented in two texts on the same topic.

### Process and Literacy

**Skills Standard 2: The student will develop and demonstrate Common Core writing literacy skills.**

#### A. Text Types and Purposes

1. Write opinion pieces on topics or texts, supporting a point of view with reasons.
2. Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
3. Write narratives based on historic Oklahomans and/or events using descriptive details and clear event sequences.

#### B. Production and Distribution of Writing

6. With guidance and support from adults, use technology to produce and publish writing (using keyboarding skills) as well as to interact and collaborate with others.

#### C. Research to Build and Present Knowledge

7. Conduct short research projects that build knowledge about a topic related to Oklahoma.
8. Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories.

#### D. Range of Writing

10. Write routinely over extended time frames and shorter time frames for a range of social studies tasks, purposes, and audiences.

## Process and Literacy

### Skills Standard 3: The student will develop and demonstrate Common Core speaking and listening skills.

#### A. Comprehension and Collaboration

1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on Grade 3 Oklahoma Studies topics and texts, building on others' ideas and expressing their own clearly.
2. Determine the main ideas and supporting details of a social studies text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.
3. Ask and answer questions about social studies information from a speaker, offering appropriate elaboration and detail.

#### B. Presentation of Knowledge and Ideas

4. Report on a social studies topic or text or tell a social studies related story with appropriate facts and relevant, descriptive details, and speaking clearly at an understandable pace.
5. Create engaging audio recordings of social studies stories or poems that demonstrate fluid reading at an understandable pace; add visual displays when appropriate to emphasize or enhance certain facts or details.

## CONTENT SKILLS

### Citizenship Literacy

#### Content Standard 1: The student will analyze the traits of good citizens.

1. Commemorate Celebrate Freedom Week by recognizing the sacrifices and contributions to American freedom by veterans and by reciting the social contract selection from the *Declaration of Independence*:
 

We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness. – That to secure these rights, Governments are instituted among Men, deriving their just powers from the consent of the governed.
2. Examine and determine the main purposes of Oklahoma's state government and identify representative leaders of the state of Oklahoma and the three branches of government. (CCRIT 2)

3. Describe the connection between the historic significance of past events and people and the symbols of Oklahoma's history including the Oklahoma State Seal and the Oklahoma Flag. (CCRIT 3)
4. Describe relationships between people and events of the past which are commemorated on Columbus Day, Veterans Day, Thanksgiving Day, Martin Luther King, Jr. Day, Washington's Birthday, Lincoln's Birthday, Flag Day, and Independence Day. (CCRIT 3)

### Economics Literacy

#### Content Standard 2: The student will identify and describe basic economic activities creating prosperity in the state of Oklahoma.

1. Summarize how scarcity and surplus require people to make choices about producing and consuming goods and services. (CCRIT 2)
2. Compare differences among human, natural, and capital resources used to produce goods and services.
3. Examine how the development of Oklahoma's major economic activities have contributed to the growth of the state including the oil and natural gas industry, agriculture and livestock, aviation, tourism, and military installations.

### Geography Literacy

#### Content Standard 3: The student will examine Oklahoma's geography and how people of Oklahoma interact with their environment.

1. The student will examine Oklahoma's political and physical features using text features and search tools. (CCRIT 5)
  - A. Distinguish among map symbols and identify relative location, direction, scale, size and shape using physical and political maps of Oklahoma including the use of latitude and longitude.
  - B. Interpret thematic maps of Oklahoma with the essential map elements of title, legend, scale, and directional indicators.
  - C. Identify Oklahoma's major landforms and bodies of water on a physical map including Arbuckle Mountains, Ozark Plateau, Wichita Mountains, Kiamichi Mountains, Black Mesa, Red River, Canadian River, Arkansas River, Lake Texoma, Lake Eufaula, and Lake Tenkiller, Grand Lake of the Cherokees, and the Great Salt Plains.
  - D. Identify Oklahoma's major metropolitan centers and cities on a political map including Oklahoma City, Tulsa, Lawton, Stillwater, Norman, Muskogee, Woodward, McAlester, and Ponca City.

- E. Describe the climate and various natural vegetation zones found in Oklahoma including the Great Plains and the Cross Timbers.
- 2. The student will examine through short research projects the interaction of the environment and the peoples of Oklahoma. (CCW 7)
  - A. Describe how early Native Americans used Oklahoma's natural resources to survive including the use of the bison, fur trading, and farming.
  - B. Describe how pioneers to Oklahoma adapted to and modified their environment including sod houses, wind mills, and crops.
  - C. Summarize how contemporary Oklahomans affect and change their environments including the McClellan-Kerr Arkansas River Navigation System, creation of recreational lakes by the construction of dams, irrigation of croplands, and the establishment of wildlife refuges. (CCRIT 2)
- 3. Describe the many Native American cultures that have inhabited present-day Oklahoma including the Spiro Mound Builders, the Five Tribes, and the Plains Indians.
- 4. Describe early expeditions in Oklahoma including those of Coronado, Washington Irving, and George Catlin.
- 5. Describe the migrations and settlements by Native Americans including the Trail of Tears.
- 6. Describe cowboy life and cattle drives as typified by experiences along the Chisholm Trail.
- 7. Explain the opening of the Unassigned Lands and distinguish between the points of view of both Native Americans and settlers. (CCRIT 6)
- 8. Commemorate Statehood Day as the joining of Indian and Oklahoma Territories.
- 9. Summarize how the weather and the environment have impacted the economy of Oklahoma in events like the Dust Bowl. (CCRIT 2)
- 10. Conduct short research projects and examine notable historic and present-day Oklahomans utilizing biographies and informational texts to describe their significant contributions including Sequoyah, Bill Pickett, Jim Thorpe, the Kiowa Six (formerly the Kiowa Five), Will Rogers, Wiley Post, Woody Guthrie, Clara Luper, Wilma Mankiller, Gordon Cooper, Shannon Lucid, Mickey Mantle, Carl Albert, and the Five Ballerinas. (CCW 7)
- 11. Develop an understanding and appreciation of the historic and contemporary racial, ethnic, and cultural groups of Oklahoma.
- 12. Identify and describe the historic significance of state and local landmarks including the Buffalo Soldiers' Old Post at Fort Sill, the Nellie Johnstone Number 1, the Oklahoma Capitol, Route 66, and the Oklahoma City National Memorial.

### History Literacy

#### **Content Standard 4: The student will analyze the significant events and historic personalities contributing to the development of the state Oklahoma.**

- 1. Understand and describe the relationship between historic events and chronology through the creation of basic timelines. (CCRIT 3)
- 2. Read and interpret primary sources related to key events in Oklahoma's past to demonstrate understanding of a text including Catlin's artwork, Sequoyah's syllabary, news accounts and photographs of the land openings, and the Dust Bowl, as well as the musical lyrics of *This Land is Your Land* and the state song, *Oklahoma*. (CCRIT 1)

## ▶ Grade 4 UNITED STATES STUDIES *Regional Geography and History*

In Grade 4, students will examine the physical, cultural, political, economic, and the historic development of the United States including early European contact with Native Americans. Students will use geographic tools to analyze the influence of the environment on the growth and development of all major regions of the United States.

**The Social Studies Process and Literacy Skills (PALS) are to be integrated throughout the Grade 4 content standards and methods of instructional delivery.**

### PROCESS AND LITERACY SKILLS (PALS) FOR LEARNING

**Process and Literacy  
Skills Standard 1: The student will develop and demonstrate Common Core informational text reading literacy skills.**

#### A. Key Ideas and Details

1. Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.
2. Determine the main idea of a text and explain how it is supported by key details; summarize the text.
3. Explain events, ideas, or historic and geographic concepts based on specific information in the text.

#### B. Craft and Structure

4. Determine the meaning of social studies-specific words or phrases in a text relevant to United States geography and history.
5. Describe the overall structure (e.g., comparison, cause/effect, geographic/historic problem/solution) of events, ideas, concepts, or information in a text.
6. Compare and contrast a firsthand (primary source) and secondhand account (secondary source) of the same event or topic.

#### C. Integration of Knowledge and Ideas

7. Interpret qualitative and quantitative information and explain how the information contributes to an understanding of the text.

### Process and Literacy

**Skills Standard 2: The student will develop and demonstrate Common Core writing literacy skills.**

#### A. Text Types and Purposes

1. Write opinion pieces on United States Regional and History topics or texts, supporting a point of view with reasons and information.
2. Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
3. Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.

#### B. Production and Distribution of Writing

4. Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience.
6. With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others.
7. Conduct short research projects that build knowledge through investigation of different aspects of United States regional geography and history.
8. Recall and gather relevant information from experiences or print and digital sources; take notes and categorize information, and provide a list of sources.
9. Draw evidence from literary or informational social studies texts to support analysis, reflection, and research.

#### C. Range of Writing

10. Write routinely over extended time frames and shorter time frames for a range of social studies tasks, purposes, and audiences.

### Process and Literacy

**Skills Standard 3: The student will develop and demonstrate Common Core speaking and listening skills.**

#### A. Comprehension and Collaboration

1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on Grade 4 United States Regional Geography and History topics and texts, building on others' ideas and expressing their own clearly.
2. Paraphrase portions of a social studies text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.

3. Identify the reasons and evidence a speaker provides to support particular points regarding a social studies topic.
- B. Presentation of Knowledge and Ideas
4. Report on a social studies topic or text, tell a social studies related story in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; and speak clearly at an understandable pace.
  5. Add audio recordings and visual displays to social studies presentations when appropriate to enhance the development of main ideas or themes.

## CONTENT SKILLS

### **Content Standard 1: The student will analyze the physical, cultural, political, economic, and the historic features and places of the regions of the United States.**

1. The student will identify and locate both relative and absolute location (latitude and longitude), the physical features of the regions of the United States including bodies of water, major rivers and drainage systems, mountain ranges, and unique, natural geographic features.
    - A. Locate landforms and bodies of water on a map of North America: the United States, the Atlantic and Pacific Oceans, and the Gulf of Mexico; the major river drainage systems including the Mississippi, Ohio, Missouri, Arkansas, Colorado, Columbia, and Rio Grande Rivers; the Great Lakes, the Great Salt Lake, and the Chesapeake Bay; the Great Plains and the Continental Divide; and the Appalachian, Rocky, Sierra Nevada, Cascade, and Brooks Mountain Ranges.
    - B. Identify, locate, and describe unique, natural geographic features of the United States including Niagara Falls, the Everglades, Death Valley, the Petrified Forest, the Painted Desert, the Grand Canyon, the Great Salt Lake, the Great Basin, the Mojave Desert, the Redwood Forest, the Badlands in South Dakota, Yellowstone and Grand Teton National Parks, Yosemite National Park, and Hawaii Volcanoes National Park.
  2. The student will identify and analyze the cultural and historic features of the United States.
    - A. Locate the current boundaries of the United States including Alaska and Hawaii.
    - B. Identify the states, state capitals, and major cities in each region.
  3. Compare and contrast the regional vegetation, climate, and spatial distribution and use of natural resources.
  4. Analyze natural resources and how they impacted the economy of each region including fishing, farming, ranching, mining, manufacturing, tourism, and oil and gas, and their connections to global trade.
  5. Summarize how people interact with their environment to resolve geographic challenges including housing, industry, transportation, communication, bridges, dams, tunnels, canals, freshwater supply, irrigation systems, and landfills. (CCRIT 2)
- C. Identify the historic significance of major national monuments, historic sites, and landmarks including the Jefferson, Lincoln, and Washington Monuments, the White House, the United States Capitol, the United States Supreme Court, Mount Vernon, Monticello, Colonial Williamsburg, Jamestown Historic Site, Dr. Martin Luther King, Jr. National Historic Site in Atlanta, Ellis Island, the Statue of Liberty, the 9/11 memorials, Independence Hall, the Jefferson National Expansion Memorial/Gateway Arch in St. Louis, the Oklahoma City National Memorial, Mount Rushmore, Little Bighorn National Monument, the Golden Gate Bridge, and Pearl Harbor National Park.
- D. Describe the diverse but unified nature of the American people by identifying the distinctive contributions to American culture of Native Americans, African Americans, major European groups, major Spanish-speaking groups, and Asian Americans.
- E. Describe the purpose of local, state, tribal, and national governments in meeting the needs of American citizens including the basic structure of the national government centered in Washington, D.C.
- F. Commemorate Celebrate Freedom Week by recognizing the sacrifices and contributions to American freedom by veterans and by reciting the social contract selection from the *Declaration of Independence*:
- We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness. – That to secure these rights, Governments are instituted among Men, deriving their just powers from the consent of the governed.

**Standard 2: The student will examine Native American groups and European explorations and settlements impacting the development of the major regions of the United States.**

1. Identify the major Native American groups and their ways of life in each region including traditional housing and economic activities, customs and storytelling, viewpoints on land usage and ownership, and their contributions to American culture and history.
2. Examine and summarize the reasons for the key expeditions of Spain, France, and England and their impact on the development of each region including the explorers Columbus, Ponce de León, Desoto, Coronado, Marquette and Jolliet, LaSalle, Cabot, Hudson, Drake, and Raleigh. (CCRIT 2)
3. Summarize how France, Spain, England, Russia, and the Netherlands culturally influenced different regions of the United States in which they settled including regional place names, architectural features, customs, and language. (CCRIT 2)
4. Identify and evaluate instances of both cooperation and conflict between Native American groups and European settlers arising from the Columbian Exchange including agriculture, trade, cultural exchanges, military alliances, wars, and control of territory.

► **Grade 5**  
**UNITED STATES STUDIES**  
***Creating the United States:  
 The Foundation, Formation, and  
 Transformation of the American  
 Nation, 1607-1806***

In the Grade 5 curriculum section of *The Foundation, Formation, and Transformation of United States History*, students will examine the inheritance of the British system and the practices of constitutionalism, self-government, individual rights, representative government, and separation of powers. The United States Studies will begin with the British settlement of Virginia at James Towne in 1607 and will conclude with the explorations of the Louisiana Purchase by Lewis and Clark.

**The Social Studies Process and Literacy Skills (PALS) are to be integrated throughout the Grade 5 content standards and methods of instructional delivery.**

ASSESSMENT NOTE: For the Grade 5 Criterion-Referenced Test (CRT) in Social Studies, the time frame is James Towne, 1607 through the ratification of the *United States Constitution* and the adoption of the *Bill of Rights* on December 15, 1791.

The Process and Literacy Standards 1-3 should be integrated throughout the content standards and used in teaching and assessing the course content at the classroom and district level. At the state level, the Process and Literacy Standards 1-3 will be measured and reported within each of the content standards 1, 2, 3, and 4 as appropriate. Only Content Standard 5 will not be assessed on the Grade 5 CRT. The Process and Literacy Skills (PALS) assessment items will be content-based and reported under each of the content standards. For assessment purposes, each Content Standard 1- 4 will have items using primary and secondary source documents, timelines, maps, charts, graphs, pictures, photographs, and/or political cartoons. There will be a balance of graphic and textual stimulus materials within the various United States History test forms. At least 50 percent of the assessment items will have appropriate pictorial and graphical representations.

An asterisk (\*) has been used to identify Content Standard 5 and the following objectives that must be assessed by the local school district. All other skills may be assessed by the Oklahoma School Testing Program (OSTP).

**PROCESS AND LITERACY SKILLS (PALS)  
 FOR LEARNING**

**Process and Literacy Skills Standard 1: The student will develop and demonstrate Common Core informational text reading literacy skills.**

**A. Key Ideas and Details**

1. Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.
2. Determine two or more main ideas of a text and explain how they are supported by key details; summarize the text.
3. Explain the relationships or interactions between two or more individuals, events, ideas, or concepts in United States history primary and/or secondary sources based on specific information in the texts.

**B. Craft and Structure**

4. Determine the meaning of social studies-specific words and phrases in a text relevant to United States history and government.
5. Compare and contrast the overall structure (e.g., chronology, comparison, cause/effect, historic problem/solution) of events, ideas, concepts, or information in two or more texts.
6. Analyze multiple accounts of the same event or topic, noting important similarities and differences in the point of view they represent.

**C. Integration of Knowledge and Ideas**

7. Draw on information from multiple print or digital sources (e.g., timelines, maps, graphs, charts, political cartoons, images, artwork), demonstrating the ability to locate an answer to a question or to solve an historic problem.
8. Identify and explain how an author uses reasons and evidence to support particular points in a text.
9. Integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably.

**Process and Literacy Skills Standard 2: The student will develop and demonstrate Common Core writing literacy skills.**

**A. Text Types and Purposes**

1. Write opinion pieces on topics in United States history and government, supporting a point of view with reasons and information.
2. Write informative/explanatory texts to examine a topic in United States history and government.
3. Write historically-based narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.

**B. Production and Distribution of Writing**

4. Produce clear and coherent writing in which the development and organization are appropriate to the task, purpose, and audience.
6. With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others.

**C. Research to Build and Present Knowledge**

7. Conduct short research projects that use several primary and secondary sources to build knowledge through investigation of different aspects of United States history and government.
8. Gather and recall relevant information from experiences, print and digital sources; summarize or paraphrase information in notes and finished work, and provide a list of sources.
9. Draw evidence from literary or informational texts to support analysis, reflection, and research.

**D. Range of Writing**

10. Write routinely over extended time frames and shorter time frames for a range of United States history and government tasks, purposes, and audiences.

**Process and Literacy Skills Standard 3: The student will develop and demonstrate Common Core speaking and listening skills.**

**A. Comprehension and Collaboration**

1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on Grade 5 United States History topics and texts, building on others' ideas and expressing their own clearly.

2. Summarize a social studies text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.
3. Summarize the points a speaker makes and explain how each claim is supported by reasons and evidence.

**B. Presentation of Knowledge and Ideas**

4. Report on a United States History topic or text or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; and speak clearly at an understandable pace.
5. Include multimedia components (e.g., graphics, sound) and visual displays in United States History presentations when appropriate to enhance the development of main ideas or themes.

**CONTENT SKILLS**

**Content Standard 1: The student will examine James Towne Settlement and Plimoth Plantation as the foundations of American culture and society. (CCRIT 3 and 8)**

1. Examine the economic and political reasons and motivations for English exploration and settlement in Virginia as evidenced through the competition for resources and the gaining of national wealth and prestige at Roanoke and James Towne. (CCRIT 8)
2. Analyze the economic, political, and religious reasons and motivations of free immigrants and indentured servants from the British Isles who came to Virginia. (CCRIT 8)
3. Explain the contributions, relationships, and interactions of John Smith, Powhatan, and John Rolfe to the establishment and survival of the James Towne settlement including the Starving Times and the development of tobacco as Virginia's cash crop. (CCRIT 3)
4. Identify and explain the reasons for the English commitment to the permanent settlement of James Towne as evidenced through the foundational events of 1619 including the introduction of
  - A. representative government with the meeting of the House of Burgesses,
  - B. private ownership of land, and
  - C. Africans as laborers; initially as indentured servants and later lifetime slavery. (CCRIT 8)



5. Use specific textual evidence from primary and secondary sources to summarize the successes and challenges the settlement of Plimoth Plantation experienced in regards to their approach to
  - A. Religious motivations for migration,
  - B. Governing institutions as established by the *Mayflower Compact*,
  - C. Relationship with Native Americans, and
  - D. The contributions of the Pilgrims, William Bradford, Chief Massasoit, and Squanto. (CCRIT 1 and 3)

**Content Standard 2: The student will compare and contrast the developments of the New England Colonies, the Middle Colonies, and the Southern Colonies based on economic opportunities, natural resources, settlement patterns, culture, and institutions of self-government. (CCRIT 5, 6 and 7; CCW 9)**

1. Compare and contrast the three colonial regions in regards to natural resources, agriculture, exports, and economic growth including the different uses of the labor systems use of indentured servants and slaves. (CCRIT 5 and CCRIT 6)
2. Analyze the similarities and differences of self-government in the three colonial regions including the role of religion in the establishment of some colonies, the House of Burgesses in Virginia, and town hall meetings in New England. (CCRIT 6)
3. Explain the international economic and cultural interactions occurring because of the triangular trade routes including the forced migration of Africans in the Middle Passage to the British colonies. (CCRIT 3)
4. Analyze and explain the relationships and interactions of ongoing encounters and conflicts between Native Americans and the British colonists involving territorial claims including King Phillip’s War. (CCRIT 3)
5. Draw specific evidence using informational texts and analyze the contributions of important individuals and groups to the foundation of the American system including Roger Williams, the Puritans, William Penn and the Quakers, Lord Baltimore, and James Oglethorpe. (CCRIT 7 and CCW 9)
6. Analyze and compare the daily life in the colonies as experienced by different social classes including large landowners, craftsmen and artisans, farmers, women, enslaved and freed African Americans, indentured servants, merchants, and Native Americans, noting important similarities and differences in the points of view they represent. (CCRIT 6)

**Content Standard 3: The student will examine the foundations of the American nation laid during the Revolutionary Era through the contributions of historic individuals and groups, the spreading of the ideals found within the *Declaration of Independence*, and the significant military and diplomatic events of the Revolutionary War that resulted in an independent United States. (CCRIT 1, 3, 5, 6, and CCW 7, 9)**

1. Research and examine the causes and effects of significant events leading to armed conflict between the colonies and Great Britain drawing evidence from informational texts about the following events including (CCRIT 3, 5, 6 and CCW 7, 9)
  - A. The *Proclamation of 1763* by King George III in restricting the perceived rights of the colonists to Native American lands which they believed they had earned by fighting during the French and Indian War,
  - B. The *Sugar and Stamp Acts* as the first direct taxes levied by Parliament on the American colonists,
  - C. The boycotts of British goods and the efforts of the Committees of Correspondence as economic means of protesting British policies the colonists thought were violating their rights to govern themselves including the right of self-taxation in hopes of getting the acts repealed,
  - D. The *Quartering Act* as a way for the British government to share the costs of defending the colonies and of controlling the growing colonial discontent,
  - E. The Boston Massacre as a sign the colonists were beginning to change protest tactics from peaceful means to direct, physical confrontation,
  - F. Colonial arguments that there should be no taxation without representation in Parliament,
  - G. The Boston Tea Party and issuance of the *Coercive Acts* (the Intolerable Acts) as punishment for destroying private property,
  - H. The British raids on Lexington and Concord, which provoked colonial armed resistance resulting in the siege of the British in Boston, and
  - I. The publication of Thomas Paine’s pamphlet, *Common Sense*, which made a rational argument for colonial independence.

2. Draw evidence from the *Declaration of Independence* to identify and explain the colonial grievances which motivated the Second Continental Congress to make arguments for and to declare independence from Great Britain and establish the ideals in American society of equality, inalienable rights, and the consent of the governed. (CCRIT 8 and CCW 9)

3. Commemorate Celebrate Freedom Week by recognizing the sacrifices and contributions to American freedom by veterans and by reciting the social contract selection from the *Declaration of Independence*:

We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness. – That to secure these rights, Governments are instituted among Men, deriving their just powers from the consent of the governed.

4. Draw specific evidence from informational texts and analyze the formation, benefits, and weaknesses of the first American national system of government under the *Articles of Confederation* including conducting and winning the Revolutionary War and management of the western territories. (CCRIT 7 and CCW 9)

5. Analyze and explain the relationships of significant military and diplomatic events of the Revolutionary War including the leadership of General George Washington, the experiences at Valley Forge, the impact of the battles at Trenton, Saratoga, and Yorktown, as well as the recognition of an independent United States by Great Britain through the *Treaty of Paris*. (CCRIT 3)

6. Identify and explain the contributions and points of view of key individuals and groups involved in the American Revolution including Patrick Henry, Samuel Adams, John Adams, Abigail Adams, Paul Revere, Benjamin Franklin, Thomas Jefferson, Mercy Otis Warren, Phillis Wheatley, the Sons and Daughters of Liberty, patriots, and loyalists by drawing information from multiple sources. (CCRIT 7, 8 and CCW 7, 9)

**Content Standard 4: The student will examine the formation of the American system of government following the American Revolution.**

1. Draw specific evidence from informational texts and examine the issues and events encountered by the young nation that led to the Constitutional Convention in Philadelphia in 1787 including a weak national government, the *Northwest Ordinance*, and civil unrest as typified in Shays' Rebellion. (CCRIT 3 and CCW9)

2. Examine the contributions and leadership of George Washington, James Madison, George Mason, and Gouverneur Morris as evidenced in the great issues, debates, and compromises of the Constitutional Convention including the *Virginia Plan* and the *New Jersey Plan*, slavery, the Three-fifths Compromise, and the Great Compromise. (CCRIT 2)

3. Determine the main purposes of the United States government as expressed in the *Preamble* and as evidenced in the *United States Constitution* including the principles reflected in the separation of powers, checks and balances, and shared powers between the federal and state governments, and the basic responsibilities of the three branches of government. (CCRIT 2)

4. Explain the process of ratification of the *United States Constitution* as well as compare and contrast the viewpoints of the Federalists and Anti-Federalists over the addition of a bill of rights. (CCRIT 5)

5. Examine the *Bill of Rights* and summarize the liberties protected in all 10 amendments. (CCRIT 2)

**\*Content Standard 5: The student will compare and contrast the continued formation of the new nation under the leadership of Presidents Washington, Adams, and Jefferson. (CCRIT 5)**

1. Analyze the formation of the new government and the presidential leadership qualities of George Washington including the precedent set by his decision not to seek a third term and the impact of his *Farewell Address*.

2. Explain the impact of the presidential election of 1800 regarding the peaceful transfer of political power from one party to another.

3. Examine the transformative impact of the *Louisiana Purchase* in 1803 upon the American system in regards to the explorations by Lewis and Clark and the concept of Manifest Destiny as America expanded westward.

An asterisk (\*) has been used to identify Content Standard 5 and the following objectives that must be assessed by the local school district. All other skills may be assessed by the Oklahoma School Testing Program (OSTP).

## ▶ Grade 6

### WORLD GEOGRAPHY

#### *Western Hemisphere: The Why of Where – Places, Patterns of Settlement, and Global Interactions*

Geography is the study of spatial patterns of the human and physical characteristics of the world and its peoples. Students will use geographic knowledge as a tool for understanding the concepts of economics and the impact of recent history on contemporary events. Students will explore how spatial patterns form, change over time, and relate to one another through a two-year examination of the regions of the world with the Western Hemisphere being studied in Grade 6 followed by the Eastern Hemisphere in Grade 7. For practical uses the traditional designations of Eastern and Western Hemispheres have been followed. The Western Hemisphere is treated as the areas of North America, South America, and the Caribbean.

**The Common Core History/Social Studies Reading and Writing Literacy Skills are to be integrated across all of the content standards and used for instructional delivery of the content.**

#### PROCESS AND LITERACY SKILLS

**Literacy Skills Standard 1: The student will develop and demonstrate Common Core Social Studies reading literacy skills.**

##### A. Key Ideas and Details

1. Cite specific textual evidence to support analysis of primary and secondary sources.
2. Determine the central ideas or information of a primary or secondary source; provide an accurate summary of the source distinct from prior knowledge or opinions.
3. Identify key steps in a text's description of a process related to history/social studies (e.g., how a bill becomes law, how interest rates are raised or lowered).

##### B. Craft and Structure

4. Determine the meaning of words and phrases as they are used in a text, including vocabulary specific to domains related to history/social studies.
5. Describe how a text presents information (e.g., sequentially, comparatively, causally).
6. Identify aspects of a text that reveal an author's point of view or purpose (e.g., loaded language, inclusion or avoidance of particular facts).

##### C. Integration of Knowledge and Ideas

7. Integrate visual information (e.g., in charts, graphs, photographs, videos, or maps) with other information in print and digital texts.
8. Distinguish among fact, opinion, and reasoned judgment in a text.
9. Analyze the relationship between a primary and secondary source on the same topic.

##### D. Range of Reading and Level of Text Complexity

10. By the end of grade 8, read and comprehend history/social studies texts in the grades 6–8 text complexity band independently and proficiently.

**Literacy Skills Standard 2: The student will develop and demonstrate Common Core Social Studies writing literacy skills.**

##### A. Text Types and Purposes

1. Write arguments focused on discipline-specific content.
  - a. Introduce claim(s) about a topic or issue, acknowledge and distinguish the claim(s) from alternate or opposing claims, and organize the reasons and evidence logically.
  - b. Support claim(s) with logical reasoning and relevant, accurate data and evidence that demonstrate an understanding of the topic or text, using credible sources.
  - c. Use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), counterclaims, reasons, and evidence.
  - d. Establish and maintain a formal style.
  - e. Provide a concluding statement or section that follows from and supports the argument presented.
2. Write informative/explanatory texts, including the narration of historic events, scientific procedures/experiments, or technical processes.
  - a. Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories as appropriate to achieving purpose; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.
  - b. Develop the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or other information and examples.
  - c. Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts.
  - d. Use precise language and domain-specific vocabulary to inform about or explain the topic.

- e. Establish and maintain a formal style and objective tone.
  - f. Provide a concluding statement or section that follows from and supports the information or explanation presented.
3. (See note; not applicable as a separate requirement)

#### B. Production and Distribution of Writing

- 4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
- 5. With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed.
- 6. Use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas clearly and efficiently.
- 7. Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.
- 8. Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.
- 9. Draw evidence from informational texts to support analysis reflection, and research.

#### C. Range of Writing

- 10. Write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In history/social studies, students must be able to incorporate narrative accounts into their analyses of individuals or events of historic import.

## CONTENT SKILLS

### Content Standard 1: The student will analyze data from a geographic perspective using the skills and tools of geography.

- 1. Cite specific geographic information to support analysis from primary and secondary sources located in texts, documents, newspapers, magazines, journals, political cartoons, and online news sources.
- 2. Integrate visual information, draw conclusions, and make predictions from geographic data and analyze spatial distribution and patterns by interpreting that data as displayed on globes, graphs, charts, satellite and other forms of visual imagery including data from bar and line graphs, pie charts, thematic maps, population pyramids, climographs, cartagrams, contour/relief maps, GIS systems, and diagrams.
- 3. Describe basic types of map projections and compare how they display information including Mercator, Peters, and Robinson, and apply the concepts of scale, distance, direction, relative location, absolute location, and latitude and longitude.
- 4. Integrate visual information and apply the skill of mental mapping of the political and physical features of Earth's surface and to organize information about people, places, and environments.
- 5. Conduct short research projects by investigating contemporary events and issues from political, economic, social, and geographic perspectives.
- 6. Commemorate Celebrate Freedom Week by recognizing the sacrifices and contributions to American freedom by veterans and by reciting the social contract selection from the *Declaration of Independence*:

We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness. – That to secure these rights, Governments are instituted among Men, deriving their just powers from the consent of the governed.

### Content Standard 2: The student will examine the cultural and physical characteristics of the major regions of the Western Hemisphere.

- 1. Define the concept of region and identify major political, physical, and economic regions of the Western Hemisphere including
  - A. The political regions of North America, Central America, South America, and the Caribbean,

- B. The physical regions including the Amazon rainforest and the North American Great Plains, and
  - C. The economic regions including commercial agriculture in North America and subsistence agriculture of Amazonian communities.
2. Describe specific political regions of the Western Hemisphere and identify on a political map the major urban centers and countries including
    - A. All nations of North America, Central America, South America, and the Caribbean, and
    - B. Major metropolitan areas including New York City, Los Angeles, Chicago, Houston, Washington, DC, Miami, Toronto, Montreal, Vancouver, Mexico City, Panama City, San Jose, Rio de Janeiro, Buenos Aires, Santiago, Caracas, Bogota, Sao Paulo, San Juan, and Havana.
  3. Describe the characteristics and relative location of major cultural regions of the Western Hemisphere including
    - A. the Maya civilization of Mesoamerica,
    - B. the Inca civilization of Latin America,
    - C. the Inuit indigenous peoples of the Arctic,
    - D. Hispanic communities of the United States and indigenous peoples of North and South America, and
    - E. French-speaking Quebec.
  4. Explain and summarize how common characteristics can link as well as divide regions including
    - A. The question of sovereignty for French-speaking Canadians,
    - B. The free trade relationships established by NAFTA, and
    - C. The establishment of *maquiladoras* on the United States-Mexican border.
  5. Cite specific textual and visual evidence in order to analyze reasons for conflict and cooperation among groups, societies, countries, and regions of the Western Hemisphere including
    - A. The bi-national construction of the St. Lawrence Seaway,
    - B. Disputes between South American nations over fishing rights off the Pacific Coast,
    - C. The strain on international relations caused by immigration, and
    - D. Relief efforts of the United Nations following natural disasters.

**Content Standard 3: The student will examine the interactions of physical systems that shape the patterns of Earth's surface.**

1. Integrate visual information in order to identify on a physical map and describe the major landforms and bodies of water of the Western Hemisphere including
  - A. Bodies of Water - Mississippi, Colorado, MacKenzie, Rio Grande, and Amazon Rivers, Gulf of Mexico, Hudson Bay, Straits of Magellan and the Bering Strait, Atlantic, Pacific, Arctic and Southern Oceans, the Great Lakes, and the concept of drainage systems and the Continental Divide.
  - B. Landforms - the Appalachian, Rocky, Andes, and Cascade Mountain Ranges, the Atacama and Sonoran Deserts, the Hawaiian and Greater Antilles archipelagos, the Pampas and Great Plains, the Canadian Shield, the Yucatan Peninsula, the Isthmus of Panama, and the Great Basin.
2. Describe how the processes and factors of latitude, elevation, Earth-Sun relationship, prevailing winds, and proximity to bodies of water influence climate and how humans respond to regional climate patterns and events including drought and *El Niño*.
3. Analyze the impact of natural disasters on human populations including forced migration, scarcity of consumer goods, and loss of employment.

**Content Standard 4: The student will analyze the human systems of the Western Hemisphere in the context of the world's peoples and cultures.**

1. Identify and describe cultural traits of language, ethnic heritage, social systems, religion, and traditions including how cultural diffusion impacts societies.
2. Describe and compare examples of the market and command economic systems including how governments affect economic activities in such systems.
3. Describe the major political systems of representative governments (democracy, republic, constitutional monarchy) and authoritarian systems (dictatorship) including the role of the citizen in the selection of government officials, lawmaking, and the liberties guaranteed under different forms of government.
4. Cite specific textual and visual evidence to explain patterns of global economic interdependence and world trade including the concepts of balance of trade, supply and demand, and measures of economic growth including Gross Domestic Product (GDP).

5. Analyze the impact of geography on population location, growth, and change, applying geographic concepts of population density, the availability of resources, settlement patterns, and migrational push and pull factors including the twentieth century Asian and Caribbean refugee migration to North America or the pattern of Hispanic workers migrating to the United States.

**Content Standard 5: The student will analyze the interactions of humans and their environment in the western hemisphere.**

1. Integrate and compare visual information of the common characteristics of developed and developing countries including access to human and economic capital, the impact of education and technology; and analyze data used by geographers including literacy rate, life expectancy, and per capita income.
2. Summarize the impact of the distribution of major renewable and nonrenewable resources and evaluate how the three levels of economic activities (primary, secondary, and tertiary) contribute to the development of a country or region including
  - A. The United States' and Canada's access to fossil fuels, water, iron, and arable soil,
  - B. Agricultural development dependent on the natural aquifers of the Great Plains,
  - C. The nationalized oil production in Venezuela and Mexico, and
  - D. North America's access to iron and coal enabling a productive steel industry.
3. Evaluate the effects of human modification of and adaptation to the natural environment including
  - A. Terraced farmland of the Andes,
  - B. Construction of the Panama Canal,
  - C. Clear-cutting of the boreal forests of North America, and
  - D. Diversion of the Colorado River for irrigation and municipal water.
4. Analyze regional problems of the western hemisphere having spatial dimensions including
  - A. Oil spills in the Gulf of Mexico,
  - B. Deforestation of Amazonia,
  - C. Air pollution and urban sprawl of Mexico City, and
  - D. Water pollution from industrial run-off into the Great Lakes.
5. Summarize the role of citizens as responsible stewards of natural resources and the environment including
  - A. Careful use of fertilizer and pesticides to avoid polluting the land and the water supply,
  - B. Participation in recycling and anti-littering activities,
  - C. Conservation of natural resources, and
  - D. Support of alternative and sustainable energy sources.

## ▶ Grade 7

### WORLD GEOGRAPHY

#### *Eastern Hemisphere*

#### *The Why of Where – Places, Patterns of Settlement, and Global Interactions*

Geography is composed of the interrelated components of skills and content knowledge, both of which are necessary to being a geographically informed citizen. Students will use geographic knowledge as a tool for understanding the concepts of economics and the impact of recent history on contemporary events. Students will focus on spatial patterns of human and physical characteristics of the world and its peoples, and will explore how these patterns form, change over time, and relate to one another in the Eastern Hemisphere. This is the second half of the middle level geographic studies program. The Western Hemisphere was the focus of the Grade 6 portion. For practical uses the traditional designations of Eastern and Western Hemispheres have been followed. The Eastern Hemisphere is treated as the areas of Africa, Asia, Europe, Australia, and Oceania.

**The Common Core History/Social Studies Reading and Writing Literacy Skills are to be integrated throughout all of the content standards and used for instructional delivery of the content.**

ASSESSMENT NOTE: Standard 1 and 2 Social Studies Process and Literacy Skills should be integrated throughout the content standards and used in teaching and assessing the student's understanding of the course skills and content at the classroom and district level. At the state level, the Social Studies Process and Literacy Standards 1 and 2 will be measured and reported within each of the content standards. Process and Literacy Skills assessment items will be content-based and reported under each of the content standards. For assessment purposes, each standard will have items using maps, charts, graphs, pictures, and photographs. There will be a balance of graphic and textual stimulus materials within the various World Geography Eastern Hemisphere test forms. At least 50 percent of the assessment will have appropriate pictorial and graphical representations.

#### PROCESS AND LITERACY SKILLS

**Literacy Skills Standard 1: The student will develop and demonstrate Common Core Social Studies reading literacy skills.**

#### A. Key Ideas and Details

1. Cite specific textual evidence to support analysis of primary and secondary sources.
2. Determine the central ideas or information of a primary or secondary source; provide an accurate summary of the source distinct from prior knowledge or opinions.
3. Identify key steps in a text's description of a process related to history/social studies (e.g., how a bill becomes law, how interest rates are raised or lowered).

#### B. Craft and Structure

4. Determine the meaning of words and phrases as they are used in a text, including vocabulary specific to domains related to history/social studies.
5. Describe how a text presents information (e.g., sequentially, comparatively, causally).
6. Identify aspects of a text that reveal an author's point of view or purpose (e.g., loaded language, inclusion or avoidance of particular facts).

#### C. Integration of Knowledge and Ideas

7. Integrate visual information (e.g., in charts, graphs, photographs, videos, or maps) with other information in print and digital texts.
8. Distinguish among fact, opinion, and reasoned judgment in a text.
9. Analyze the relationship between a primary and secondary source on the same topic.

#### D. Range of Reading and Level of Text Complexity

10. By the end of grade 8, read and comprehend history/social studies texts in the grades 6–8 text complexity band independently and proficiently.

**Literacy Skills Standard 2: The student will develop and demonstrate Common Core Social Studies writing literacy skills.**

#### A. Text Types and Purposes

1. Write arguments focused on discipline-specific content.
  - a. Introduce claim(s) about a topic or issue, acknowledge and distinguish the claim(s) from alternate or opposing claims, and organize the reasons and evidence logically.
  - b. Support claim(s) with logical reasoning and relevant, accurate data and evidence that demonstrate an understanding of the topic or text, using credible sources.
  - c. Use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), counterclaims, reasons, and evidence.
  - d. Establish and maintain a formal style.

- e. Provide a concluding statement or section that follows from and supports the argument presented.
2. Write informative/explanatory texts, including the narration of historic events, scientific procedures/experiments, or technical processes.
  - a. Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories as appropriate to achieving purpose; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.
  - b. Develop the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or other information and examples.
  - c. Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts.
  - d. Use precise language and domain-specific vocabulary to inform about or explain the topic.
  - e. Establish and maintain a formal style and objective tone.
  - f. Provide a concluding statement or section that follows from and supports the information or explanation presented.
3. (See note; not applicable as a separate requirement)

#### B. Production and Distribution of Writing

4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
5. With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed.
6. Use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas clearly and efficiently.
7. Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.
8. Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.
9. Draw evidence from informational texts to support analysis reflection, and research.

#### C. Range of Writing

10. Write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In history/social studies, students must be able to incorporate narrative accounts into their analyses of individuals or events of historic import.

#### CONTENT SKILLS

##### Content Standard 1: The student will analyze data from a geographic perspective using the skills and tools of geography.

1. Cite specific geographic information to support analysis from primary and secondary sources located in texts, documents, newspapers, magazines, journals, political cartoons, and online news sources.
2. Integrate visual information, draw conclusions, and make predictions from geographic data and analyze spatial distribution and patterns by interpreting that data as displayed on globes, graphs, charts, satellite and other forms of visual imagery including data from bar and line graphs, pie charts, thematic maps, population pyramids, climographs, cartagrams, contour/relief maps, GIS systems, and diagrams.
3. Apply the concepts of scale, distance, direction, relative location, absolute location, and latitude and longitude.
4. Integrate visual information and apply the skill of mental mapping of the political and physical features of Earth's surface and to organize information about people, places, and environments.
5. Conduct short research projects by investigating contemporary events and issues from political, economic, social, and geographic perspectives.
6. Commemorate Celebrate Freedom Week by recognizing the sacrifices and contributions to American freedom by veterans and by reciting the social contract selection from the *Declaration of Independence*:
 

We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness. –That to secure these rights, Governments are instituted among Men, deriving their just powers from the consent of the governed.



**Content Standard 2: The student will examine the human and physical characteristics of the major regions of the Eastern Hemisphere.**

1. Integrate visual information in order to describe specific political regions of the Eastern Hemisphere, and identify on a political map the major urban areas and countries including
  - A. Europe – London/United Kingdom, Paris/France, Rome/Italy, Berlin/Germany, and Moscow/Russia,
  - B. Southwest Asia – Mecca/Saudi Arabia, Jerusalem/Israel, Tehran/Iran, Beirut/Lebanon, and Bagdad/Iraq,
  - C. South Asia – Mumbai/India, Pakistan, Afghanistan,
  - D. East and Southeast Asia – Beijing/China, Seoul/South Korea, Tokyo/Japan, Indonesia, Vietnam, and Malaysia,
  - E. Africa – Cairo/Egypt, Nairobi/Kenya, South Africa, Libya, Sudan, and Nigeria, and
  - F. Oceania – Australia and New Zealand.
2. Integrate visual information in order to describe the characteristics and relative location of physical and cultural regions of the Eastern Hemisphere including
  - A. Physical Regions –
    - 1) Sub-Saharan savannas and rainforests,
    - 2) Pacific Ring of Fire,
    - 3) Rhine-Danube industrial corridor, and
    - 4) The Himalayan Mountain Range.
  - B. Cultural Regions –
    - 1) The Sahel's and Sahara's nomadic peoples,
    - 2) Jerusalem's religious significance to Judaism, Christianity, and Islam, and
    - 3) The cultural hearths of the Nile, Indus, Ganges, Hwang He River Valleys, and Mesopotamia.
3. Explain and summarize how common physical or human characteristics can link as well as divide regions including
  - A. Extensive inland waterway systems of natural rivers and manmade canals that link European trading centers,
  - B. Ural Mountains that physically divide Europe from Asia,
  - C. Sahara Desert that physically and culturally divides North Africa from Sub-Saharan Africa,
  - D. Multiple languages, religion, and the legacy of the caste system in India that present barriers to cultural unity, and
  - E. Cultural differences resulting in civil war and genocide in Darfur and Rwanda.
4. Cite specific textual and visual evidence to analyze reasons for conflict and cooperation among groups, societies, countries, and regions of the Eastern Hemisphere and the involvement of multinational organizations of the United Nations and the North Atlantic Treaty Organization including
  - A. Multinational peace-keeping efforts to stabilize Arab-Israeli relations,

- B. Roots of disputes between India and Pakistan resulting in the threat of conventional war and nuclear war,
  - C. Impact of multiple ethnic groups on Nigerian political stability,
  - D. Coordination of currency and free trade zones created by the European Union,
  - E. Humanitarian relief efforts by the United Nations to address hunger in Africa, and
  - F. The struggle for and achievement of civil liberties and economic opportunities in South Africa's post-apartheid era.
5. Explain and summarize how and why regions change over time through physical and human processes which operate to modify Earth's surface including the
    - A. Cultural diffusion brought about by North Africa's location central to trade across multiple continents,
    - B. Impact of overgrazing and drought leading to desertification in the Sahel,
    - C. Results of the Green Revolution in Central Asia, and
    - D. Effects of abundant oil supplies in the Persian Gulf region.

**Content Standard 3: The student will examine the interactions of physical systems that shape the patterns of Earth's surface in the Eastern Hemisphere.**

1. Integrate visual information to identify on a physical map and describe the major landforms and bodies of water including
  - A. Landforms – the Iberian, Scandinavian, and Indochina Peninsulas; the Urals, Pyrenees, Alps, and Himalayan Mountain Ranges; the Sahara, Kalahari, and Gobi Deserts; and the Great Rift Valley.
  - B. Bodies of water – Danube, Volga, Nile, Congo, Niger, Tigris, Euphrates, Indus, Ganges, and Yangtze Rivers; Mediterranean, Arabian and North Seas; Persian Gulf; Bay of Bengal; Strait of Gibraltar; Atlantic, Arctic, Indian, Pacific, and the Southern Oceans.
2. Analyze from multiple perspectives the impact of natural disasters on human populations resulting in forced migration, scarcity of consumer goods, and loss of employment including
  - A. The impact of plate tectonics resulting in earthquakes, tsunamis, and volcanic eruptions on human and physical systems bordering the Pacific Ring of Fire,
  - B. Frequent drought of northern Africa and Southwest Asia that creates stress on humans and wildlife,
  - C. The impact of monsoon patterns and typhoon activity on agriculture and loss of life in South Asia, and
  - D. Regular flooding of China's rivers resulting in the accumulation of loess.

**Content Standard 4: The student will analyze the world's peoples and cultures in the context of the human systems in the Eastern Hemisphere.**

1. Compare and contrast the common cultural traits including language, ethnic heritage, social systems, religions, and traditions and how cultural diffusion impacts societies.
2. Describe the world's major religions including Buddhism, Christianity, Daoism, Hinduism, Islam, and Judaism including the geographic origins, major beliefs, and customs of the six major world religions and the significance of religion in contemporary societies.
3. Integrate visual information to analyze data used by geographers to measure the human characteristics used to define developed versus developing countries including literacy rates, life expectancy, infant mortality rate, Gross National Product (GNP), and per capita income.
4. Compare and contrast the market and command economic systems and how governments affect economic activities in such systems including
  - A. Economic reforms in China that are moving China from a command system toward a market system,
  - B. The economic advantages and disadvantages of Sweden's mixed market system,
  - C. The economic prosperity generated by Japan's market system, and
  - D. The economic development limitations of North Korea's command economic system.
5. Compare and contrast the major political systems of representative governments (democracy, republic, and constitutional monarchy) and authoritarian systems (dictatorship and absolute monarchy) including the role of the citizen in the selection of government officials, lawmaking, and the liberties guaranteed under different forms of government.
  - A. The symbolic role of the British crown in comparison to the absolute authority of the monarchy of Saudi Arabia.
  - B. The transformation of the former Soviet Union from an authoritarian system to the limited representative democracy of Russia.
6. Integrate visual information to explain patterns of global economic interdependence and world trade focusing on the concepts of imports and exports, supply and demand, Gross Domestic Product (GDP), and balance of trade including
  - A. The European Union's single currency and open single market that link economies and governments,
  - B. The relative isolation of Japan and the United Kingdom that require extensive trade patterns for natural resources and markets,
  - C. Outsourcing of technological and manufacturing jobs to developing regions of Asia, and

- D. Control over production and supply of global oil reserves as exercised by the Organization of the Petroleum Exporting Countries (OPEC).
7. Evaluate and summarize the impact of geography on population location, growth, change and density and on the availability of resources, settlement patterns, and migration including the
  - A. Impact of push and pull factors on the rural migration to overcrowded urban centers in India,
  - B. Challenges of under-population on the labor market in developed nations of Europe,
  - C. Changing face of European cultures as a result of recent patterns of immigration, and
  - D. Impact of China's one-child policy on population growth and culture.

**Content Standard 5: The student will analyze the interactions of humans and their environment in the Eastern Hemisphere.**

1. Cite specific textual and visual evidence to describe the relationship between the distribution of major renewable and nonrenewable resources and evaluate how the three levels of economic activities (primary, secondary, and tertiary) contribute to the development of a country or region including the
  - A. Abundant energy resources driving China's rapid development,
  - B. Reserves of valuable minerals responsible for South Africa's economic growth,
  - C. Accessibility of coal and iron reserves contributing to steel industries of western Europe and Russia, and
  - D. Value of North Sea petroleum reserves to developed nations' economies.
2. Evaluate the effects of human modification of and adaptation to the natural environment including the
  - A. Deforestation of Indonesia's rainforests,
  - B. Creation of living space through the drainage of seawater and the system of dikes in the Netherlands,
  - C. Transformation of arid lands of the Arabian Peninsula through introduction of western irrigation methods,
  - D. Use of terrace farming and double-cropping as solutions to food needs of East Asia, and
  - E. Benefits and dangers of nuclear power generation as exemplified by the environmental disaster at Chernobyl.
3. Integrate visual information to analyze regional problems and policies having spatial dimensions in the Eastern Hemisphere including the
  - A. Management of the Aral Sea's water resources,
  - B. Impact of economic development on Russia's Arctic regions, and
  - C. Transformation of the environment and population centers caused by the construction of the Three Gorges Dam in China.

## ▶ Grade 8 UNITED STATES HISTORY *Creating the United States: The Foundation, Formation, and Transformation of the American Nation, 1754-1877*

The focus of the course in United States History for Grade 8 is the American Revolution through the Civil War and Reconstruction Eras (1754-1877).

The student will describe and analyze the major causes, key events, and important personalities of the American Revolution. The student will examine in greater depth the factors, events, documents, significant individuals, and political ideas that led to the formation of the United States of America. These will be pursued through a chronological study of the early national period, westward expansion, and the Civil War and Reconstruction Eras. Citizenship skills will focus upon the historic development and understanding of constitutional government in the United States. The student will continue to develop and put to use a variety of Social Studies Process and Literacy Skills.

**The Common Core History/Social Studies Reading and Writing Literacy Skills are to be integrated throughout all of the content standards and used for instructional delivery of the content.**

ASSESSMENT NOTE: However, for the Grade 8 Criterion-Referenced Test over the History, Constitution and Government of the United States, the time frame is 1754-1865, or from approximately the *Albany Plan of Union* to the assassination of President Abraham Lincoln.

Standard 1 and 2 Social Studies Process and Literacy Skills should be integrated throughout the content standards and used in teaching and assessing the student's understanding of the course skills and content at the classroom and district level. At the state level, the Social Studies Process and Literacy Standards 1 and 2 will be measured and reported within each of the content standards 1, 2, 3, 4, and 5. Content Standard 6 is to be taught and assessed at the local district and classroom levels. Process and Literacy Skills assessment items will be content-based and reported under each of the content standards. For assessment purposes, each standard will have items using primary and secondary source documents, timelines, maps, charts, graphs, pictures, photographs, and/or political cartoons. There will be a balance of graphic and textual stimulus materials within the various United States History test forms. At least 50 percent of the assessment will have appropriate pictorial and graphical representations.

An asterisk (\*) has been used to identify Content Standard 6 and the following objectives that must be assessed by the local school district. All other skills may be assessed by the Oklahoma School Testing Program (OSTP).

### PROCESS AND LITERACY SKILLS

#### Literacy Skills Standard 1: The student will develop and demonstrate Common Core Social Studies reading literacy skills.

##### A. Key Ideas and Details

1. Cite specific textual evidence to support analysis of primary and secondary sources.
2. Determine the central ideas or information of a primary or secondary source; provide an accurate summary of the source distinct from prior knowledge or opinions.
3. Identify key steps in a text's description of a process related to history/social studies (e.g., how a bill becomes law, how interest rates are raised or lowered).

##### B. Craft and Structure

4. Determine the meaning of words and phrases as they are used in a text, including vocabulary specific to domains related to history/social studies.
5. Describe how a text presents information (e.g., sequentially, comparatively, causally).
6. Identify aspects of a text that reveal an author's point of view or purpose (e.g., loaded language, inclusion or avoidance of particular facts).

##### C. Integration of Knowledge and Ideas

7. Integrate visual information (e.g., in charts, graphs, photographs, videos, or maps) with other information in print and digital texts.
8. Distinguish among fact, opinion, and reasoned judgment in a text.
9. Analyze the relationship between a primary and secondary source on the same topic.

##### D. Range of Reading and Level of Text Complexity

10. By the end of grade 8, read and comprehend history/social studies texts in the grades 6-8 text complexity band independently and proficiently.

**Literacy Skills Standard 2: The student will develop and demonstrate Common Core Social Studies writing literacy skills.**

**A. Text Types and Purposes**

1. Write arguments focused on discipline-specific content.
  - a. Introduce claim(s) about a topic or issue, acknowledge and distinguish the claim(s) from alternate or opposing claims, and organize the reasons and evidence logically.
  - b. Support claim(s) with logical reasoning and relevant, accurate data and evidence that demonstrate an understanding of the topic or text, using credible sources.
  - c. Use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), counterclaims, reasons, and evidence.
  - d. Establish and maintain a formal style.
  - e. Provide a concluding statement or section that follows from and supports the argument presented.
2. Write informative/explanatory texts, including the narration of historic events, scientific procedures/experiments, or technical processes.
  - a. Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories as appropriate to achieving purpose; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.
  - b. Develop the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or other information and examples.
  - c. Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts.
  - d. Use precise language and domain-specific vocabulary to inform about or explain the topic.
  - e. Establish and maintain a formal style and objective tone.
  - f. Provide a concluding statement or section that follows from and supports the information or explanation presented.
3. (See note; not applicable as a separate requirement)

**B. Production and Distribution of Writing**

4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
5. With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed.

6. Use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas clearly and efficiently.
7. Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.
8. Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.
9. Draw evidence from informational texts to support analysis reflection, and research.

**C. Range of Writing**

10. Write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

Note: Students’ narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In history/social studies, students must be able to incorporate narrative accounts into their analyses of individuals or events of historic import.

**CONTENT SKILLS**

**Content Standard 1: The student will analyze the foundations of the United States by examining the causes, events, and ideologies which led to the American Revolution.**

1. Summarize the political and economic consequences of the French and Indian War on the 13 colonies including the imperial policies of requiring the colonies to pay a share of the costs of defending the British Empire and the precedent of the *Albany Plan of Union* as an early attempt to unify the colonies.
2. Cite specific textual and visual evidence to summarize the significance of British attempts to regulate colonial rights, as well as the colonial responses to these measures including
  - A. The restriction of colonial rights as British subjects including colonial opposition and protests against taxation without representation, the boycotts of British goods, Patrick Henry’s *Stamp Act Resolves*, the Committees of Correspondence, and the Boston Massacre,

- B. The *Coercive Acts of 1774* (the Intolerable Acts) as British punishment for the Boston Tea Party and the convening of the First Continental Congress as a colonial response,
  - C. The Battles of Lexington and Concord as a rallying point of armed colonial resistance, and
  - D. Patrick Henry's *Give Me Liberty or Give Me Death* speech and Thomas Paine's pamphlet *Common Sense* advocating the defense of colonial rights and independence.
3. Cite specific textual and visual evidence to analyze the ideological and propaganda war between Great Britain and her North American colonies including the
    - A. Points of views of the Patriots and the Loyalists about independence,
    - B. Writings of Mercy Otis Warren and Phillis Wheatley,
    - C. Use of Paul Revere's engraving of the Boston Massacre,
    - D. Rejection of the *Olive Branch Petition* by King George III, and
    - E. Grievances which motivated the Second Continental Congress to make arguments for and to declare independence from Great Britain thus creating the United States of America.
  4. Determine the central ideas and grievances expressed in the *Declaration of Independence* and their intellectual origin including
    - A. John Locke's theory of natural rights,
    - B. The concept of the social contract,
    - C. The ideals established in the American society of equality, inalienable rights, and the consent of the governed; and
    - D. Evaluate the contributions of Thomas Jefferson and the Committee of Five in drafting the *Declaration of Independence*.
  5. Commemorate Celebrate Freedom Week by recognizing the sacrifices and contributions to American freedom by veterans and by reciting the social contract selection from the *Declaration of Independence*:
 

We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness. – That to secure these rights, Governments are instituted among Men, deriving their just powers from the consent of the governed.

**Content Standard 2: The student will examine the foundations of the American nation laid during the Revolutionary Era through the contributions of significant individuals and groups involved in the key military and diplomatic events of the Revolutionary War that resulted in an independent nation.**

1. Analyze the formation of the first American national system of government under the *Articles of Confederation* including the success of conducting and winning the Revolutionary War.
2. Compare and contrast the different motivations and choices that various colonial populations had regarding the War for Independence including
  - A. Whether to fight for independence, remain loyal to the king, or to be neutral,
  - B. The choices that free and enslaved African Americans had of escaping to freedom, or joining the British or Colonial forces, or remaining enslaved,
  - C. The decisions Native Americans had as to which side to support in hopes of protecting their traditional cultures and native territories, and
3. Cite specific textual and visual evidence to summarize the impact of key military and diplomatic events including the
  - A. Military leadership of General George Washington,
  - B. Victories at Boston, Trenton, and Saratoga,
  - C. French Alliance,
  - D. Publication of Thomas Paine's *The Crisis*,
  - E. Valley Forge Encampment, and
  - F. Defeat of Lord Cornwallis's army at the Siege of Yorktown.

**Content Standard 3: The student will examine the formation of the American system of government following the Revolutionary War that led to the creation of the *United States Constitution*.**

1. Examine and summarize the issues encountered by the young nation that led to the Constitutional Convention in Philadelphia in 1787 including the
  - A. Strengths and weaknesses of the *Articles of Confederation*,
  - B. Lack of a common national currency,
  - C. Lack of a common defense,
  - D. Management of the war debts,
  - E. Disputes over the western territories as resolved by the *Northwest Ordinance*, and
  - F. Civil unrest as typified in Shays' Rebellion.
2. Analyze the significance of the Constitutional Convention, its major debates and compromises including the *Virginia Plan*, the *New Jersey Plan*, the Great Compromise, the Three-fifths Compromise, and the key contributions of George Washington, James Madison, George Mason, and Gouverneur Morris.

3. Cite specific textual and visual evidence to examine the arguments for and against the ratification of the *United States Constitution* as expressed in the *Federalist Papers Number 10 and Number 51*, as well as Anti-Federalist concerns over a strong central government and the omission of a bill of rights.
  4. Explain the constitutional principles of popular sovereignty, consent of the governed, separation of powers, checks and balances, federalism, and judicial review.
  5. Cite specific textual and visual evidence and summarize the rights and responsibilities all Americans possess under the *United States Constitution* as guaranteed in the *Bill of Rights* including the freedoms of religion, speech, press, assembly, petition, and the rights to due process and trial by jury.
2. Summarize the significance and impact of the Jacksonian Era including the
    - A. Election of Andrew Jackson as a victory for the common man,
    - B. Nullification Crisis and the development of the states' rights debates as typified by the arguments put forth by Senator Daniel Webster and Senator John C. Calhoun, and
    - C. Impact of government policies, non-adherence to treaties, and territorial expansion on Native American lands including the resistance and removal of the Five Tribes.
  3. Cite specific textual and visual evidence to compare the sectional economic transformations including the concentration of population, manufacturing, shipping, and the development of the railroad system in the North as contrasted to the plantation system, the increased demand for cotton brought about by the invention of the cotton gin, and the reliance on a slave labor system in the South.
  4. Analyze points of view from specific textual evidence to describe the variety of African American experiences, both slave and free, including Nat Turner's Rebellion, legal restrictions in the South, and efforts to escape via the Underground Railroad network including Harriet Tubman.
  5. Analyze and summarize the significance of the Abolitionist and Women's Suffrage Movements including the influence of the Second Great Awakening and the *Declaration of Sentiments*, and the leadership of Frederick Douglass, William Lloyd Garrison, Sojourner Truth, Susan B. Anthony, and Elizabeth Cady Stanton to the respective movements.
  6. Examine the concept of Manifest Destiny as a motivation and justification for westward expansion, including the
    - A. Territorial growth resulting from the annexation of Texas, the *Mexican Cession*, and the *Gadsden Purchase*,
    - B. Causes of the rapid settlement of Oregon and California,
    - C. Impact upon Native American culture and tribal lands, and
    - D. Growing sectional tensions regarding the expansion of slavery.

**Content Standard 4: The student will examine the political, economic, social, and geographic transformation of the United States during the early to mid-1800s.**

1. Analyze the impact and consequences of major events and issues facing early presidential administrations including
  - A. The suppression of the Whiskey Rebellion and establishment of the government's right to tax,
  - B. President George Washington's advice for the new nation in his *Farewell Address*,
  - C. The restriction of individual rights in the *Alien and Sedition Acts* and the responses of the Republican-Democrats in the *Virginia and Kentucky Resolutions*,
  - D. The impact of the presidential election of 1800 and the peaceful transfer of political power from one party to another,
  - E. The acquisition of territory through the *Louisiana Purchase* and the contributions of the explorations of the Lewis and Clark Corps of Discovery Expedition,
  - F. How the Marshall Court's precedent-setting decisions in *Marbury v. Madison* and *McCulloch v. Maryland* interpreted the *United States Constitution* and established the Supreme Court as an independent and equal branch of the federal government.
  - G. The War of 1812 which confirmed American independence and fueled a spirit of nationalism,
  - H. The increased sectional tensions as the nation dealt with the expansion of slavery and attempts to limit it through the *Missouri Compromise*, and
  - I. The *Monroe Doctrine* as an attempt to protect American interests and territory in the western hemisphere.

**Content Standard 5: The student will analyze the social and political transformation of the United States as a result of the causes, course, and consequences of the American Civil War during the period of 1850 to 1865.**

1. Cite specific textual and visual evidence to summarize the importance of slavery as a principal cause of increased sectional polarization as seen in the following significant events including the
  - A. *Compromise of 1850* as a last attempt to reach a compromise regarding slavery,
  - B. Publication of *Uncle Tom's Cabin* as fuel for anti-slavery sentiments,
  - C. *Kansas-Nebraska Act* as it established the principle of popular sovereignty in new territories, repealed the *Missouri Compromise*, and led to factional feuds in Bleeding Kansas, and
  - D. *Dred Scott v. Sanford* case which declared slaves as property and motivated John Brown's Raid on the federal arsenal at Harper's Ferry.
2. Cite specific textual and visual evidence to analyze the significance and results of the presidential election of 1860 including the
  - A. Secession of South Carolina as expressed in the *Ordinance of Secession*,
  - B. Goal of President Abraham Lincoln to preserve the Union,
  - C. Formation of the Confederate States of America,
  - D. Opening attack on Fort Sumter, and
  - E. Rising tensions over the strategic Border States.
3. Compare the advantages and disadvantages of the Union and the Confederacy upon the eve of the war including the political/military leadership of President Lincoln to Confederate President Jefferson Davis and the military leadership of Union General Ulysses S. Grant to Confederate General Robert E. Lee.
4. Identify and summarize the consequences of the major turning points of the war including the
  - A. Anaconda Plan and Total War Strategy,

- B. Battle of Antietam as a catalyst for the issuance of the *Emancipation Proclamation* and its role in expanding the goals of the war to include the ending of slavery,
- C. Battle of Gettysburg as inspiration for the *Gettysburg Address* and how Lincoln's speech clarified the Union's motivations for winning the war,
- D. Capture of Vicksburg in securing the Union's control of the Mississippi River,
- E. Excerpts from Lincoln's *Second Inaugural Address* of President Lincoln, calling for national reconciliation,
- F. Generosity of the North in terms of surrender demands as offered to General Lee at Appomattox Courthouse, and
- G. Impact of Lincoln's assassination and loss of his leadership on plans for reconstruction.

**\*Content Standard 6: The student will analyze the transformation of politics and society during the Reconstruction Era, 1865 to 1877.**

1. Compare and contrast the various policies and plans for the reconstruction of the Confederacy including those proposed by President Lincoln, President Andrew Johnson, and the Radical Republicans.
  2. Cite specific textual and visual evidence to analyze the impact of the *13th, 14th, and 15th Amendments*, the Black Codes, the Freedmen's Bureau, and Jim Crow laws.
  3. Identify points of view regarding the social changes following the Civil War including the role of carpetbaggers and scalawags, the rise of the Ku Klux Klan, elected Black officials, and sharecroppers.
  4. Evaluate the impact of the *Homestead Act of 1862* and the resulting movement westward to free land including the impact of continued displacement of Native Americans.
  5. Assess the impact of the presidential election of 1876 as an end to the reconstruction of the South.
- An asterisk (\*) has been used to identify Content Standard 6 and the following objectives that must be assessed by the local school district. All other skills may be assessed by the Oklahoma School Testing Program (OSTP).

## ► High School ECONOMICS

In high school Economics, the student will learn and apply basic economic reasoning skills, concepts, and skills. The student will apply a variety of economic decision-making models to real-life economic situations. The student will examine the American free-market system as contrasted with other economic systems. The roles of economic systems, money, entrepreneurs, the United States Government, and the Federal Reserve will be examined as well.

**The Common Core History/Social Studies Reading and Writing Literacy Skills are to be integrated throughout all of the content standards and used for instructional delivery of the content.**

### COMMON CORE STATE STANDARDS READING AND WRITING LITERACY IN HISTORY/SOCIAL STUDIES

The Common Core State Standards Reading and Writing Literacy Standards for Literacy in History/Social Studies in the high school contain two grade bands, 9-10 and 11-12. Since school districts have the option of scheduling high school social studies courses at any grade level 9-12, only the CCSS for Reading and Writing for Grades 9-10 have been included in each high school Social Studies course. If a course is taught at the 11th or 12th grade level, then the CCSS for Reading and Writing Grades 11-12 must be used for social studies literacy instruction. A copy of the CCSS for Reading and Writing Grades 11-12 are found in Appendix C.

#### Celebrate Freedom Week

In order to educate Oklahoma students about the sacrifices made for freedom on behalf of the country and the values on which this country was founded, November 11 has been designated “Veterans Day,” and the week in which November 11 falls has been designated “Celebrate Freedom Week” for the public schools of Oklahoma. As part of a social studies class, during Celebrate Freedom Week or during another full school week as determined by the local board of education, appropriate instruction concerning the intent, meaning, and importance of the *Declaration of Independence* and the *United States Constitution*, including the *Bill of Rights*, in their historic contexts shall occur.

The study of the *Declaration of Independence* is to include the study and the relationship of ideas expressed in that document to subsequent American history.

Students in Grades 3-12 shall study and recite the following from the “social contract” selection of the *Declaration of Independence*:

We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness. – That to secure these rights, Governments are instituted among Men, deriving their just powers from the consent of the governed.

The board of education of each public school district shall ensure that each school in its district will on Veterans Day conduct and observe an appropriate Veterans Day Assembly program of at least one class period that remembers and honors American veterans.

### PROCESS AND LITERACY SKILLS

**Process and Literacy Standard 1: Reading Skills. The student will develop and demonstrate social studies Common Core reading literacy skills.**

#### A. Key Ideas and Details

1. Cite specific textual evidence to support analysis of primary and secondary sources, attending to such features as the date and origin of the information.
2. Determine the central ideas or information of a primary or secondary source; provide an accurate summary of how key events or ideas develop over the course of the text.
3. Analyze in detail a series of events described in a text; determine whether earlier events caused later ones or simply preceded them.

#### B. Craft and Structure

4. Determine the meaning of words and phrases as they are used in a text, including vocabulary describing political, social, or economic aspects of history/social science.
5. Analyze how a text uses structure to emphasize key points or advance an explanation or analysis.
6. Compare the point of view of two or more authors for how they treat the same or similar topics, including which details they include and emphasize in their respective accounts.

#### C. Integration of Knowledge and Ideas

7. Integrate quantitative or technical analysis (e.g., charts, research data) with qualitative analysis in print or digital text.
8. Assess the extent to which the reasoning and evidence in a text support the author’s claims.
9. Compare and contrast treatments of the same topic in several primary and secondary sources.

#### D. Range of Reading and Level of Text Complexity

10. By the end of grade 10, read and comprehend history/social studies texts in the grades 9–10 text complexity band independently and proficiently.



**Process and Literacy Standard 2: Writing Skills. The student will develop and demonstrate Common Core social studies writing literacy skills.**

**A. Text Types and Purposes**

1. Write arguments focused on discipline-specific content.
  - a. Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among the claim(s), counterclaims, reasons, and evidence.
  - b. Develop claim(s) and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience's knowledge level and concerns.
  - c. Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.
  - d. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.
  - e. Provide a concluding statement or section that follows from or supports the argument presented.
2. Write informative/explanatory texts, including the narration of historic events, scientific procedures/experiments, or technical processes.
  - a. Introduce a topic and organize ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.
  - b. Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.
  - c. Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts.
  - d. Use precise language and domain-specific vocabulary to manage the complexity of the topic and convey a style appropriate to the discipline and context as well as to the expertise of likely readers.
  - e. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.

- f. Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).

3. (See note; not applicable as a separate requirement)

**B. Production and Distribution of Writing**

4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
5. Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.
6. Use technology, including the Internet, to produce, publish, and update individual or shared writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically.

**C. Research to Build and Present Knowledge**

7. Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.
8. Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation.

9. Draw evidence from informational texts to support analysis, reflection, and research.

**D. Range of Writing**

10. Write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In history/social studies, students must be able to incorporate narrative accounts into their analyses of individuals or events of historic import.

**CONTENT SKILLS**

**Content Standard 1: The student will develop and apply economic reasoning and decision-making skills.**

1. Define and apply basic economic concepts of scarcity, surplus, choice, opportunity cost, cost/benefit analysis, risk/reward relationship, incentive, disincentive, and trade-off to a variety of economic situations.
2. Determine appropriate courses of economic actions using a variety of economic reasoning and decision-making models including the PACED Decision-Making Model by using the five step process of  
 P = Stating the PROBLEM,  
 A = Listing the ALTERNATIVES,  
 C = Identifying the CRITERIA,  
 E = EVALUATING the options, based on the criteria, and  
 D = Making a DECISION.

**Content Standard 2: The student will evaluate how societies answer the three basic economic questions: what goods and services to produce, how to produce them, and for whom are they produced.**

1. Compare the world’s basic economic systems of market (free enterprise), command, and mixed market economies identifying countries that have adopted each and comparing and contrasting the results those economic systems have produced in those countries as measured by GDP, national prosperity, and individual income and wealth.
2. Describe the role of the factors of production, land, labor, capital, entrepreneurship, and technology in economic systems.

**Content Standard 3: The student will explain how prices are set in a market economy using supply and demand graphs and will determine how price provides incentives to buyers and sellers.**

1. Analyze how price and non-price factors affect the demand and supply of goods and services available in the marketplace.
2. Explain what causes shortages and surpluses including government imposed price floors, price ceilings, and other government regulations and the impact they have on prices and people’s decisions to buy or sell.

**Content Standard 4: The student will evaluate how changes in the level of competition in different markets affect prices.**

1. Explain how competition impacts the free market including the concepts that competition among sellers lowers costs and prices while encouraging increased production and competition among buyers increases prices and the allocation of goods and services to consumers willing and able to pay higher prices.
2. Explain how people’s own self-interest, incentives and disincentives influence market decisions.

**Content Standard 5: The student will describe the role of economic institutions including banks, labor unions, corporations, governments, and not-for-profits in a market economy.**

1. Evaluate the impact of government ensuring the protection of private property rights and the rule of law in a market economy.
2. Describe how banks match savers with borrowers and allow people to pool their incomes and provide future income through investing in stocks.
3. Identify how labor unions, corporations, and not-for-profits influence a market economy.

**Content Standard 6: The student will analyze how money makes it easier to trade, borrow, save, invest, and compare the value of goods and services.**

1. Explain how individuals, businesses and the overall economy benefit from using and saving money.
2. Identify the components of the money supply, the different functions of money, and give examples of each.
3. Explain how the value of money is determined by the goods and services it can buy.

**Content Standard 7: The student will evaluate how interest rates impact decisions in the market economy.**

1. Analyze the relationship between interest rates and inflation rates.
2. Determine how changes in real interest rates impact people’s decisions to borrow money and purchase goods in a market economy.

**Content Standard 8: The student will analyze the role of entrepreneurs in a market economy.**

1. Analyze the potential risks and potential gains of entrepreneurs opening new businesses or inventing a new product, and determine the financial and nonfinancial incentives that motivate them.
2. Identify an entrepreneur and describe how his/her decisions affect job opportunities for others.

**Content Standard 9: The student will evaluate the economic role of government in a market economy.**

1. Explain the role that government has in dealing with issues such as poverty, pollution, and medical research.
2. Describe the costs and benefits of government assistance programs, education, and other government funded services and projects.

**Content Standard 10: The student will examine current economic conditions in the United States.**

1. Determine how interest rates, unemployment, Consumer Price Index (CPI), individual savings and debt, government debt, labor supply, and inflation impact current economic conditions in the United States.
2. Explain how these conditions have an impact on consumers, producers, and government policymakers.

**Content Standard 11: The student will identify Gross Domestic Product (GDP) and Gross National Product (GNP) as basic measures of a nation's economic output and income.**

1. Explain GDP and GNP and how they are used to describe economic output over time and compare the GDP of various countries representing free-market, command, and mixed economies.
2. Describe the impact on the economy when GDP and GNP are growing or declining.

**Content Standard 12: The student will explain the role of inflation and unemployment in an economic system.**

1. Define inflation and determine how it is measured and the impact it has on different sectors of the United States economy.
2. Define the different types of unemployment and determine how it is measured and the impact it has on different sectors of the United States economy.

**Content Standard 13: The student will identify the potential economic impact of policy changes by the Federal Reserve and the federal government.**

1. Compare and contrast fiscal and monetary policy and their impact on the economy.
2. Evaluate the conditions under which the federal government and the Federal Reserve implement expansionary or contractionary policies.

## ► High School OKLAHOMA HISTORY AND GOVERNMENT: *The Foundation, Formation, and Transformation of Oklahoma*

In Oklahoma History and Government, the student will examine the people and events that have formed and transformed the landscape and cultures of the place and peoples that have become Oklahoma. The student will examine important political and ideological movements, as well as economic, cultural, and political accomplishments of state, national, and world significance. The learning of Oklahoma History and Government should lead students to link Oklahoma’s history to local, national, and global contexts.

**The Common Core History/Social Studies Reading and Writing Literacy Skills are to be integrated throughout all of the content standards and used for instructional delivery of the content.**

### COMMON CORE STATE STANDARDS READING AND WRITING LITERACY IN HISTORY/SOCIAL STUDIES

The Common Core State Standards Reading and Writing Literacy Standards for Literacy in History/Social Studies in the high school contain two grade bands, 9-10 and 11-12. Since school districts have the option of scheduling high school social studies courses at any grade level 9-12, only the CCSS for Reading and Writing for Grades 9-10 have been included in each high school Social Studies course. If a course is taught at the 11th or 12th grade level, then the CCSS for Reading and Writing Grades 11-12 must be used for social studies literacy instruction. A copy of the CCSS for Reading and Writing Grades 11-12 are found in Appendix C.

#### **Celebrate Freedom Week**

In order to educate Oklahoma students about the sacrifices made for freedom on behalf of the country and the values on which this country was founded, November 11 has been designated “Veterans Day,” and the week in which November 11 falls has been designated “Celebrate Freedom Week” for the public schools of Oklahoma. As part of a social studies class, during Celebrate Freedom Week or during another full school week as determined by the local board of education, appropriate instruction concerning the intent, meaning, and importance of the *Declaration of Independence* and the *United States Constitution*, including the *Bill of Rights*, in their historic contexts shall occur.

The study of the *Declaration of Independence* is to include the study and the relationship of ideas expressed in that document to subsequent American history

Students in Grades 3-12 shall study and recite the following from the “social contract” selection of the *Declaration of Independence*:

We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness. –That to secure these rights, Governments are instituted among Men, deriving their just powers from the consent of the governed.

The board of education of each public school district shall ensure that each school in its district will on Veterans Day conduct and observe an appropriate Veterans Day Assembly program of at least one class period that remembers and honors American veterans.

### PROCESS AND LITERACY SKILLS

**Process and Literacy Standard 1: Reading Skills.  
The student will develop and demonstrate social studies Common Core reading literacy skills.**

#### A. Key Ideas and Details

1. Cite specific textual evidence to support analysis of primary and secondary sources, attending to such features as the date and origin of the information.
2. Determine the central ideas or information of a primary or secondary source; provide an accurate summary of how key events or ideas develop over the course of the text.
3. Analyze in detail a series of events described in a text; determine whether earlier events caused later ones or simply preceded them.

#### B. Craft and Structure

4. Determine the meaning of words and phrases as they are used in a text, including vocabulary describing political, social, or economic aspects of history/social science.
5. Analyze how a text uses structure to emphasize key points or advance an explanation or analysis.
6. Compare the point of view of two or more authors for how they treat the same or similar topics, including which details they include and emphasize in their respective accounts.

### C. Integration of Knowledge and Ideas

7. Integrate quantitative or technical analysis (e.g., charts, research data) with qualitative analysis in print or digital text.
8. Assess the extent to which the reasoning and evidence in a text support the author's claims.
9. Compare and contrast treatments of the same topic in several primary and secondary sources.

### D. Range of Reading and Level of Text Complexity

10. By the end of grade 10, read and comprehend history/social studies texts in the grades 9–10 text complexity band independently and proficiently.

## Process and Literacy Standard 2: Writing Skills. The student will develop and demonstrate Common Core social studies writing literacy skills.

### A. Text Types and Purposes

1. Write arguments focused on discipline-specific content.
  - a. Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among the claim(s), counterclaims, reasons, and evidence.
  - b. Develop claim(s) and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience's knowledge level and concerns.
  - c. Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.
  - d. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.
  - e. Provide a concluding statement or section that follows from or supports the argument presented.
2. Write informative/explanatory texts, including the narration of historic events, scientific procedures/experiments, or technical processes.
  - a. Introduce a topic and organize ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.
  - b. Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.

- c. Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts.
  - d. Use precise language and domain-specific vocabulary to manage the complexity of the topic and convey a style appropriate to the discipline and context as well as to the expertise of likely readers.
  - e. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.
  - f. Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).
3. (See note; not applicable as a separate requirement)

### B. Production and Distribution of Writing

4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
5. Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.
6. Use technology, including the Internet, to produce, publish, and update individual or shared writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically.

### C. Research to Build and Present Knowledge

7. Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.
8. Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation.
9. Draw evidence from informational texts to support analysis, reflection, and research.

### D. Range of Writing

10. Write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In history/social studies, students must be able to incorporate narrative accounts into their analyses of individuals or events of historic import.

## CONTENT SKILLS

### Content Standard 1: The student will describe the state's geography and the historic foundations laid by Native American, European, and American cultures.

1. Integrate visual information to identify and describe the significant physical and human features including major trails, railway lines, waterways, cities, ecological regions, natural resources, highways, and landforms.
2. Summarize the accomplishments of prehistoric cultures including the Spiro Mound Builders.
3. Compare and contrast the goals and significance of early Spanish, French, and American expeditions including the impact of disease, interactions with Native Americans, and the arrival of the horse and new technologies.
4. Compare and contrast cultural perspectives of Native Americans and European Americans regarding land ownership and trading practices.

### Content Standard 2: The student will evaluate the major political and economic events that transformed the land and its people prior to statehood.

1. Summarize and analyze the role of river transportation to early trade and mercantile settlements including Chouteau's Trading Post at Three Forks.
2. Describe the major trading and peacekeeping goals of early military posts including Fort Gibson.
3. Integrate visual and textual evidence to explain the reasons for and trace the migrations of Native American peoples including the Five Tribes into present-day Oklahoma, the *Indian Removal Act of 1830*, and tribal resistance to the forced relocations.
4. Summarize the impact of the Civil War and Reconstruction Treaties on Native American peoples, territories, and tribal sovereignty including the
  - A. Required enrollment of the Freedmen,
  - B. Second Indian Removal and the role of the Buffalo Soldiers,
  - C. Significance of the Massacre at the Washita,
  - D. Reasons for the reservation system, and

- E. Establishment of the western military posts of Fort Sill, Fort Supply, and Fort Reno.
5. Cite specific visual and textual evidence to assess the impact of the cattle and coal mining industries on the location of railroad lines, transportation routes, and the development of communities.
  6. Analyze the influence of the idea of Manifest Destiny on the Boomer Movement including the official closing of the frontier in 1890.
  7. Compare and contrast multiple points of view to evaluate the impact of the *Dawes Act* which resulted in the loss of tribal communal lands and the redistribution of lands by various means including land runs as typified by the Unassigned Lands and the Cherokee Outlet, lotteries, and tribal allotments.

### Content Standard 3: The student will analyze the formation and development of constitutional government in Oklahoma.

1. Compare and contrast the development of governments among the Native American tribes, the movement for the state of Sequoyah, the proposal for an all-Black state, and the impact of the *Enabling Act* on single statehood.
2. Describe and summarize attempts to create a state constitution joining Indian and Oklahoma Territories including the impact of the Progressive and Labor Movements resulting in statehood on November 16, 1907.
3. Compare and contrast Oklahoma's state government to the United States' national system of government including the branches of government, their functions, and powers.
4. Describe the division, function, and sharing of powers among levels of government including city, county, tribal, and state.
5. Identify major sources of local and state revenues and the services provided including education, infrastructure, courts, and public safety.
6. Describe state constitutional provisions including the direct primary, initiative petition, referendum, and recall.

### Content Standard 4: The student will examine the transformation of Oklahoma during times of boom and bust of the 1920s through the 1940s.

1. Compare and contrast the successes and failures of the United States policy of assimilation of the Native Americans in Oklahoma including the passage of the *Indian Citizenship Act of 1924* and the effects of the Indian boarding schools (1880s-1940s) upon Native Americans' identity, culture, traditions, and tribal government and sovereignty.

2. Examine multiple points of view regarding the historic evolution of race relations in Oklahoma including *Senate Bill 1* establishing Jim Crow laws, the growth of all-Black towns, the Tulsa Race Riot, and the resurgence of the Ku Klux Klan.
3. Summarize the impact of the national Socialist movement and organized labor on various segments of Oklahoma society including agriculture, mining, and state politics.
4. Examine how the economic cycles of boom and bust of the oil industry affected major sectors of employment, mining, and the subsequent development of communities, as well as the role of entrepreneurs including J.J. McAlester, Frank Phillips, E.W. Marland, and Robert S. Kerr.
5. Cite specific textual and visual evidence to evaluate the impact of the boom and bust cycle of Oklahoma's agricultural production as a response to the needs of World War I, and its effect as a precursor of the Great Depression.
6. Cite specific textual and visual evidence of the environmental conditions and the impact of human mismanagement of resources resulting in the Dust Bowl including the migration of the Okies, the national perceptions of Oklahomans as shaped by *The Grapes of Wrath*, and the New Deal policies regarding conservation of natural resources.
7. Describe the contributions of Oklahomans in 1920s and 1930s including Deep Deuce and African-American jazz musicians, Will Rogers's and Woody Guthrie's political and social commentaries, Wiley Post's aviation milestones, and the artwork of the Kiowa Six (formerly the Kiowa Five).
8. Summarize and analyze the impact of mobilization for World War II including the establishment of military bases and prisoner of war installations and the contributions of Oklahomans to the war effort including the Native American code talkers and the 45th Infantry Division.
- D. Leadership of Governor Gary in the peaceful integration of the public common and higher education systems.
2. Analyze the impact of economic growth in various sectors including the
  - A. Impact of rural to urban migration,
  - B. Development of water and timber resources,
  - C. Emergence of the tourism as an industry,
  - D. Discovery of new fossil fuel resources, Tulsa's designation as Oil Capital of the World, and the opening of the Anadarko Basin, and
  - E. Improvement of the state's transportation infrastructures and the McClellan-Kerr Arkansas River Navigation System.
3. Cite specific textual and visual evidence to describe the artistic contributions of Oklahomans in the fields of music, art, literature, theater and dance including Ralph Ellison and the Five Indian Ballerinas as well as the perceptions of Oklahoma by the rest of the nation because of the musical *Oklahoma*.
4. Summarize the impact of Oklahoma's leadership on state and national politics including the rise of viable two party elections, Governor Henry Bellmon, and United States Representative Carl Albert.
5. Analyze the evolving relationship between state and tribal governments impacting tribal self-determination and control over Native American lands and resources including issues of joint jurisdiction, taxation, and gaming.
6. Cite specific textual and visual evidence to analyze the oil and gas boom of the 1970s and the subsequent bust of the energy industry during the 1980s including the impact of the Penn Square Bank Collapse on the state's economy, employment, and banking.
7. Describe the contemporary role the state's agriculture plays in feeding the nation and the world including the wheat, corn, cattle, pork, and chicken industries.

**Content Standard 5: The student will investigate how post-war social, political, and economic events continued to transform the state of Oklahoma during the 1950s through the present.**

1. Cite specific textual and visual evidence to evaluate the progress of race relations and actions of civil disobedience in the state including the
  - A. Judicial interpretation of the equal protection clause of the *14th Amendment* which ultimately resulted in the desegregation of public facilities, and public schools and universities,
  - B. Landmark Supreme Court cases of *Sipuel v. Board of Regents of the University of Oklahoma* (1948) and *McLaurin v. Oklahoma Board of Regents for Higher Education* (1950),
  - C. Lunch counter sit-ins organized by Clara Luper and the NAACP, and
8. Explain the leadership of Oklahoma and its people in the field of aeronautics including the Federal Aviation Administration, NASA space program, and the influence of weather research on national disaster preparedness.
9. Examine major cultural and ethnic groups' contributions to the social and economic transformation of the modern state of Oklahoma.
10. Cite specific textual and visual evidence to analyze the causes and effects of the domestic terrorist attack on the Murrah Federal Building in Oklahoma City including the responses of Oklahomans to the event, the concept of the "Oklahoma Standard" and the creation of the Oklahoma City National Memorial and Museum.

**► High School  
PSYCHOLOGY  
Foundations and Formations  
of Human Development**

Psychology is the study of human social behavior from an individual perspective including the foundations of psychology as an empirical social science, the structure and functions of the brain, human development, and how individuals adapt to their environment. Students will examine principles of motivation, how a person’s culture and society influence the individual, psychological disorders, and the promotion of mental health.

**The Common Core History/Social Studies Reading and Writing Literacy Skills are to be integrated throughout all of the content standards and used for instructional delivery of the content.**

**COMMON CORE STATE STANDARDS READING AND WRITING LITERACY IN HISTORY/SOCIAL STUDIES**

The Common Core State Standards Reading and Writing Literacy Standards for Literacy in History/Social Studies in the high school contain two grade bands, 9–10 and 11–12. Since school districts have the option of scheduling high school social studies courses at any grade level 9–12, only the CCSS for Reading and Writing for Grades 9–10 have been included in each high school Social Studies course. If a course is taught at the 11th or 12th grade level, then the CCSS for Reading and Writing Grades 11–12 must be used for social studies literacy instruction. A copy of the CCSS for Reading and Writing Grades 11–12 are found in Appendix C.

**Celebrate Freedom Week**

In order to educate Oklahoma students about the sacrifices made for freedom on behalf of the country and the values on which this country was founded, November 11 has been designated “Veterans Day,” and the week in which November 11 falls has been designated “Celebrate Freedom Week” for the public schools of Oklahoma. As part of a social studies class, during Celebrate Freedom Week or during another full school week as determined by the local board of education, appropriate instruction concerning the intent, meaning, and importance of the *Declaration of Independence* and the *United States Constitution*, including the *Bill of Rights*, in their historic contexts shall occur.

The study of the *Declaration of Independence* is to include the study and the relationship of ideas expressed in that document to subsequent American history

Students in Grades 3–12 shall study and recite the following from the “social contract” selection of the *Declaration of Independence*:

We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness. – That to secure these rights, Governments are instituted among Men, deriving their just powers from the consent of the governed.

The board of education of each public school district shall ensure that each school in its district will on Veterans Day conduct and observe an appropriate Veterans Day Assembly program of at least one class period that remembers and honors American veterans.

**PROCESS AND LITERACY SKILLS**

**Process and Literacy Standard 1: Reading Skills.  
The student will develop and demonstrate social studies Common Core reading literacy skills.**

**A. Key Ideas and Details**

1. Cite specific textual evidence to support analysis of primary and secondary sources, attending to such features as the date and origin of the information.
2. Determine the central ideas or information of a primary or secondary source; provide an accurate summary of how key events or ideas develop over the course of the text.
3. Analyze in detail a series of events described in a text; determine whether earlier events caused later ones or simply preceded them.

**B. Craft and Structure**

4. Determine the meaning of words and phrases as they are used in a text, including vocabulary describing political, social, or economic aspects of history/social science.
5. Analyze how a text uses structure to emphasize key points or advance an explanation or analysis.
6. Compare the point of view of two or more authors for how they treat the same or similar topics, including which details they include and emphasize in their respective accounts.

**C. Integration of Knowledge and Ideas**

7. Integrate quantitative or technical analysis (e.g., charts, research data) with qualitative analysis in print or digital text.
8. Assess the extent to which the reasoning and evidence in a text support the author’s claims.
9. Compare and contrast treatments of the same topic in several primary and secondary sources.

**D. Range of Reading and Level of Text Complexity**

10. By the end of grade 10, read and comprehend history/ social studies texts in the grades 9–10 text complexity band independently and proficiently.



**Process and Literacy Standard 2: Writing Skills. The student will develop and demonstrate Common Core social studies writing literacy skills.**

**A. Text Types and Purposes**

1. Write arguments focused on discipline-specific content.
  - a. Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among the claim(s), counterclaims, reasons, and evidence.
  - b. Develop claim(s) and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience's knowledge level and concerns.
  - c. Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.
  - d. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.
  - e. Provide a concluding statement or section that follows from or supports the argument presented.
2. Write informative/explanatory texts, including the narration of historic events, scientific procedures/experiments, or technical processes.
  - a. Introduce a topic and organize ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.
  - b. Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.
  - c. Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts.
  - d. Use precise language and domain-specific vocabulary to manage the complexity of the topic and convey a style appropriate to the discipline and context as well as to the expertise of likely readers.
  - e. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.
  - f. Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).

3. (See note; not applicable as a separate requirement)

**B. Production and Distribution of Writing**

4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
5. Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.
6. Use technology, including the Internet, to produce, publish, and update individual or shared writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically.

**C. Research to Build and Present Knowledge**

7. Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.
8. Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation.
9. Draw evidence from informational texts to support analysis, reflection, and research.

**D. Range of Writing**

10. Write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In history/social studies, students must be able to incorporate narrative accounts into their analyses of individuals or events of historic import.

**CONTENT SKILLS**

**Content Standard 1: The student will examine the foundations of psychology and its origins as a separate social science discipline.**

1. Analyze the definition of psychology in the context of psychology as an empirical science and the major approaches to psychology including behavioral, psychoanalytical, cognitive, and humanistic.
2. Evaluate the origins of psychology based on significant historic figures including Wilhelm Wundt, William James, John B. Watson, and Karen Horney.
3. Classify the various subfields in psychology including vocational applications such as counseling, industrial, clinical, experimental, and educational psychology.

**Content Standard 2: The student will examine the development of psychology as an empirical science by describing the scientific method, explaining research strategies and identifying ethical issues.**

1. Describe the scientific method as the framework for research and apply the principles of research design to an appropriate experiment.
2. Compare and contrast quantitative and qualitative research strategies including experiments, surveys, focus groups, and narratives as the foundation of research in psychology.
3. Identify ethical standards psychologists must address regarding research with human and non-human participants.
4. Explore the various modes of psychological testing including personality, intelligence, and projective while assessing the reliability of each.

**Content Standard 3: The student will investigate the structure, biochemistry and circuitry of the brain and the nervous system to understand their roles in affecting behavior.**

1. Identify and describe the structure and function of the brain including the hypothalamus, prefrontal lobe, corpus callosum, hemispheres, and amygdala.
2. Examine the structure and function of the nervous and endocrine system and how they affect behavior.
3. Identify the parts of a neuron and explain neurotransmission including the role and impact of various neurotransmitters.

4. Explain the processes of sensation and perception, as well as the capabilities and limitations of sensory processes including the visual, auditory, kinesthetic, olfactory, and gustatory sensory systems.
5. Describe the interaction of a person and the environment in determining perception including Gestalt principles and how one’s experiences and expectations influence perception.
6. Identify various states of consciousness including sleep and dreams, hypnosis, meditation, and psychoactive drugs.

**Content Standard 4: The student will analyze physical, social, emotional, moral, and cognitive development from conception through the latter stages of adulthood.**

1. Explain the interaction of environmental and biological factors in human development including the role of the brain in all aspects of development.
2. Compare the theories of Jean Piaget, Sigmund Freud, Lawrence Kohlberg, Carl Jung, and Erik Erikson regarding human development.

**Content Standard 5: The student will understand how organisms adapt to their environment through learning and cognition.**

1. Identify and explain the major theories of learning including Ivan Pavlov’s classical conditioning, B.F. Skinner’s, and Albert Bandura’s Operant conditioning, and Bandura’s observational learning.
2. Describe the process, organization, and factors that influence memory and recall.
3. Analyze strategies and impediments involved in problem solving and decision making and how this knowledge could be applied to daily life.

**Content Standard 6: The student will understand the principles of motivation and emotion.**

1. Compare the predominant theories of motivation and emotion including the biological, social-cognitive, humanistic, and cultural theories.
2. Analyze the biological and environmental influences on positive and negative emotion.

**Content Standard 7: The student will understand how society and culture influence a person's behavior and mental processes.**

1. Evaluate the factors that lead to conformity, obedience, and nonconformity as demonstrated in experiments including the Stanford Prison Experiment, Milgram Experiment, or Solomon Asch's studies.
2. Explain how bias, discrimination, and use of stereotypes influence behavior with regard to gender, race, sexual orientation, and ethnicity as demonstrated in the studies of the Brown Eyed/Blue Eyed Experiment and the Clark Doll Experiment.
3. Examine influences on aggression and conflict including the factors associated with the bystander effect as demonstrated in such cases as the Kitty Genovese murder.

**Content Standard 8: The student will examine how psychological disorders are diagnosed, classified and treated.**

1. Analyze the methods of determining abnormal behavior and the tools used to diagnose and classify disorders.
2. Describe symptoms and causes of major categories of psychological disorders including schizophrenic, mood, anxiety, personality, somatoform, and dissociative disorders.
3. Compare available treatment options and how they evolved through history and among different cultures.

**Content Standard 9: The student will evaluate the many factors that promote mental health.**

1. Identify and explain potential sources of stress, effects of stress, and various coping strategies for dealing with stress.
2. Describe the characteristics of and factors that promote resilience and optimism.
3. Analyze the relationship between psychological health and physiological health.

## ► High School SOCIOLOGY

### *Formations and Patterns of Group Behavior*

Sociology is the study of human social behavior from a group perspective including recurring patterns of attitudes, actions and reactions, and how these patterns vary in social groups, among cultures, and across time. Students will examine diverse societies, group behavior and social structures, as well as the impact of cultural change on society and using scientific method of sociological thought. As in other social science disciplines, sociology guides students to continue to develop skills in thinking, inquiry and research, and participation in a culturally diverse, democratic society in an interdependent world.

**The Common Core History/Social Studies Reading and Writing Literacy Skills are to be integrated throughout all of the content standards and used for instructional delivery of the content.**

#### COMMON CORE STATE STANDARDS READING AND WRITING LITERACY IN HISTORY/SOCIAL STUDIES

The Common Core State Standards Reading and Writing Literacy Standards for Literacy in History/Social Studies in the high school contain two grade bands, 9-10 and 11-12. Since school districts have the option of scheduling high school social studies courses at any grade level 9-12, only the CCSS for Reading and Writing for Grades 9-10 have been included in each high school Social Studies course. If a course is taught at the 11th or 12th grade level, then the CCSS for Reading and Writing Grades 11-12 must be used for social studies literacy instruction. A copy of the CCSS for Reading and Writing Grades 11-12 are found in Appendix C.

#### **Celebrate Freedom Week**

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The study of the *Declaration of Independence* is to include the study and the relationship of ideas expressed in that document to subsequent American history

Students in Grades 3-12 shall study and recite the following from the “social contract” selection of the *Declaration of Independence*:

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The board of education of each public school district shall ensure that each school in its district will on Veterans Day conduct and observe an appropriate Veterans Day Assembly program of at least one class period that remembers and honors American veterans.

#### PROCESS AND LITERACY SKILLS

**Process and Literacy Standard 1: Reading Skills. The student will develop and demonstrate social studies Common Core reading literacy skills.**

##### A. Key Ideas and Details

1. Cite specific textual evidence to support analysis of primary and secondary sources, attending to such features as the date and origin of the information.
2. Determine the central ideas or information of a primary or secondary source; provide an accurate summary of how key events or ideas develop over the course of the text.
3. Analyze in detail a series of events described in a text; determine whether earlier events caused later ones or simply preceded them.

##### B. Craft and Structure

4. Determine the meaning of words and phrases as they are used in a text, including vocabulary describing political, social, or economic aspects of history/social science.
5. Analyze how a text uses structure to emphasize key points or advance an explanation or analysis.
6. Compare the point of view of two or more authors for how they treat the same or similar topics, including which details they include and emphasize in their respective accounts.

##### C. Integration of Knowledge and Ideas

7. Integrate quantitative or technical analysis (e.g., charts, research data) with qualitative analysis in print or digital text.

8. Assess the extent to which the reasoning and evidence in a text support the author’s claims.
9. Compare and contrast treatments of the same topic in several primary and secondary sources.

**D. Range of Reading and Level of Text Complexity**

10. By the end of grade 10, read and comprehend history/ social studies texts in the grades 9–10 text complexity band independently and proficiently.

**Process and Literacy Standard 2: Writing Skills.**  
**The student will develop and demonstrate**  
**Common Core social studies writing literacy skills.**

**A. Text Types and Purposes**

1. Write arguments focused on discipline-specific content.
  - a. Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among the claim(s), counterclaims, reasons, and evidence.
  - b. Develop claim(s) and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience’s knowledge level and concerns.
  - c. Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.
  - d. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.
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2. Write informative/explanatory texts, including the narration of historic events, scientific procedures/ experiments, or technical processes.
  - a. Introduce a topic and organize ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.
  - b. Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience’s knowledge of the topic.
  - c. Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts.

- d. Use precise language and domain-specific vocabulary to manage the complexity of the topic and convey a style appropriate to the discipline and context as well as to the expertise of likely readers.
- e. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.
- f. Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).

3. (See note; not applicable as a separate requirement)

**B. Production and Distribution of Writing**

4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
5. Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.
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**C. Research to Build and Present Knowledge**

7. Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.
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Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In history/social studies, students must be able to incorporate narrative accounts into their analyses of individuals or events of historic import

**CONTENT SKILLS**

**Content Standard 1: The student will recognize sociology as a social science, identify methods and strategies of research, and examine the contributions of sociology to the understanding of social issues.**

1. Describe the development of the field of sociology as a social science.
2. Identify the contributions of leading theorists within sociology including Auguste Comte, Emile Durkheim, Harriet Martineau, Herbert Spencer, Max Weber, C. Wright Mills, Karl Marx, and W.E.B. Dubois.
3. Evaluate different sociological research methods including participant observation, natural observation, library research, questionnaires, experiments, interviews, and case studies.
4. Conduct research on an issue using the scientific method of inquiry including developing a hypothesis, gathering and interpreting data, and drawing conclusions.

**Content Standard 2: The student will examine the influence of culture and the way cultural transmission is accomplished.**

1. Examine how relationships, structures, patterns, and processes influence culture.
2. Recognize the key components of a culture including knowledge, language and communication, customs, values, and physical artifacts.
3. Explain the differences between a culture and a society.
4. Analyze the influences of genetic inheritance and culture on human behavior including the debate over nature versus nurture.
5. Compare and contrast various subcultures including counter culture, pop culture, ethnic cultures, and religious cultures.
6. Describe factors that have led to cultural diversity within the United States.

**Content Standard 3: The student will identify how social status influences individual and group behaviors.**

1. Describe how social status affects social order including upper class, middle class, lower class, white-collar professionals, blue-collar workers, and the unemployed.
2. Recognize how role expectations can lead to conflict including gender, age, racial groups, and ethnic groups within different societies.

**Content Standard 4: The student will examine how social groups are composed of people who share common characteristics including interests, beliefs, behaviors, and feelings.**

1. Examine why individuals become members of or associate with different social groups.
2. Compare and contrast various types of norms including folkways, mores, laws, and taboos, and explain why rules of behavior are considered important to society.
3. Evaluate the characteristics of primary groups including small size, intimate settings, and enduring relationships and how members' behaviors are influenced by the primary groups.
4. Evaluate the characteristics of secondary groups including less permanence, less personal, and having a special purpose, and how members' behaviors are influenced by the secondary groups.
5. Investigate stereotypes of different groups including gangs, baby boomers, immigrants, and the homeless.

**Content Standard 5: The student will identify the effects of social institutions on individual and group behavior, and how these institutions influence the development of the individual.**

1. Analyze the impact of social institutions on individuals, groups, and organizations within society, and how these institutions transmit the values of society including familial, religious, educational, economic, and political.
2. Examine rites of passage within various social institutions including religious ceremonies, school proms, quinceañeros, graduation, marriage, and retirement.
3. Define ethnocentrism and xenophobia, and analyze how they can be beneficial or destructive to a culture.

**Content Standard 6: The student will examine social change over time and the various factors that lead to these changes.**

1. Examine environmental, political, economic, scientific and technological influences upon immediate and long-term social change.
2. Describe how collective behavior can influence and change society including sit-ins, organized demonstrations, and the use of social media.

**Content Standard 7: The student will analyze social problems that affect large numbers of people or result from imbalances within a social system.**

1. Distinguish between characteristics of a social problem as compared to an individual problem.
2. Analyze patterns of behavior found within social problems and their implications for society including juvenile crime, drug addiction, and long-term unemployment.
3. Examine individual and group response and potential resolutions to social problems as well as the consequences of such solutions.

**Content Standard 8: The student will explore both individual and collective behavior.**

1. Describe the traditions, roles and expectations necessary for a society to continue and flourish.
2. Examine factors that can lead to the breakdown and disruption of a society.
3. Differentiate the impact of individual leaders of different social and political movements including Mohandas K. Gandhi, Adolf Hitler, Dr. Martin Luther King, Jr., Osama Bin Laden, and Susan B. Anthony.
4. Interpret how social behavior is influenced by propaganda, the news media, and advertising.
5. Investigate the impact of rumor, gossip, and other inaccurate communications upon group behavior.

## ► High School UNITED STATES GOVERNMENT *Freedom for All: Securing Rights and Defining Responsibilities*

Students of American government will examine the philosophical foundations of the American republican system, the formation of governmental institutions and practices, and their transformations since the founding era as a basis of preparing students to become informed, responsible, engaged, and literate citizens who are committed to the ideas and values of democracy and use them in their daily lives, as well as make informed decisions about how their government should protect individual liberties and address the common good.

**The Common Core History/Social Studies Reading and Writing Literacy Skills are to be integrated throughout all of the content standards and used for instructional delivery of the content.**

### COMMON CORE STATE STANDARDS READING AND WRITING LITERACY IN HISTORY/SOCIAL STUDIES

The Common Core State Standards Reading and Writing Literacy Standards for Literacy in History/Social Studies in the high school contain two grade bands, 9-10 and 11-12. Since school districts have the option of scheduling high school social studies courses at any grade level 9-12, only the CCSS for Reading and Writing for Grades 9-10 have been included in each high school Social Studies course. If a course is taught at the 11th or 12th grade level, then the CCSS for Reading and Writing Grades 11-12 must be used for social studies literacy instruction. A copy of the CCSS for Reading and Writing Grades 11-12 are found in Appendix C.

#### Celebrate Freedom Week

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The study of the *Declaration of Independence* is to include the study and the relationship of ideas expressed in that document to subsequent American history

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### PROCESS AND LITERACY SKILLS

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The student will develop and demonstrate social studies Common Core reading literacy skills.**

#### A. Key Ideas and Details

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#### C. Integration of Knowledge and Ideas

7. Integrate quantitative or technical analysis (e.g., charts, research data) with qualitative analysis in print or digital text.
8. Assess the extent to which the reasoning and evidence in a text support the author’s claims.



9. Compare and contrast treatments of the same topic in several primary and secondary sources.

#### D. Range of Reading and Level of Text Complexity

10. By the end of grade 10, read and comprehend history/social studies texts in the grades 9–10 text complexity band independently and proficiently.

### Process and Literacy Standard 2: Writing Skills. The student will develop and demonstrate Common Core social studies writing literacy skills.

#### A. Text Types and Purposes

1. Write arguments focused on discipline-specific content.
  - a. Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among the claim(s), counterclaims, reasons, and evidence.
  - b. Develop claim(s) and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience's knowledge level and concerns.
  - c. Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.
  - d. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.
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  - a. Introduce a topic and organize ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.
  - b. Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.
  - c. Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts.
  - d. Use precise language and domain-specific vocabulary to manage the complexity of the topic and convey a style appropriate to the discipline and context as well as to the expertise of likely readers.

- e. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.
- f. Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).

3. (See note; not applicable as a separate requirement)

#### B. Production and Distribution of Writing

4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
5. Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.
6. Use technology, including the Internet, to produce, publish, and update individual or shared writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically.

#### C. Research to Build and Present Knowledge

7. Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.
8. Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation.
9. Draw evidence from informational texts to support analysis, reflection, and research.

#### D. Range of Writing

10. Write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In history/social studies, students must be able to incorporate narrative accounts into their analyses of individuals or events of historic import.

**CONTENT SKILLS**

**Content Standard 1: The student will compare the formation of contemporary governments in terms of access, use, and justification of power.**

1. Contrast the essential characteristics of limited versus unlimited governments with an understanding that the United States’ constitutional system establishes legal restraints on governmental power.
2. Cite specific textual and visual evidence to compare and contrast historic and contemporary examples of unlimited governments, known as authoritarian or totalitarian systems including dictatorships, theocracies, and absolute monarchies to examples of limited systems including direct democracies, representative democracies, constitutional monarchies, and republics.
3. Summarize and explain how the American system is a representative republic in which the citizenry is sovereign.
4. Compare the advantages and disadvantages of the major ways governmental power is distributed, shared, and structured in unitary, federal, and confederal systems in terms of effectiveness, prevention of abuse of power, and responsiveness to the popular will.
5. Compare and contrast the property and due process rights in the United States free-market economy which are protected by the *United States Constitution* to the restricted property and due process rights existing/non-existing under command economic systems.

**Content Standard 2: The student will describe the historic and philosophical foundations of the United States republican system of government.**

1. Cite specific textual and visual evidence and compare points of view to examine the philosophical contributions of the Enlightenment including the writings of Montesquieu, Locke, and Thomas Jefferson; the early experiences of colonial self-government; and the influence of religious texts including *The Bible* to the foundation of American political thought.
2. Cite specific textual and visual evidence and summarize the impact of major historic events of the Revolutionary Era and major documents contributing to the formation of constitutional government in the United States including the *Mayflower Compact* (1620), the *Fundamental Orders of Connecticut* (1639), the *English Bill of Rights* (1689), the *Albany Plan of Union* (1754), the *Virginia Declaration of Rights* (1776), the *Articles of Confederation* (1781), and the colonial/revolutionary writings of Patrick Henry, Thomas Paine, and James Otis.

3. Determine the central ideas and importance of the concept of inalienable rights, the social contract or compact, the 27 grievances as stated in the *Declaration of Independence*, and the discussions of enumerated versus implied powers; and cite specific textual and visual evidence to explain how the protection of these rights were incorporated in the *United States Constitution* and the federal *Bill of Rights* as a fundamental purpose of the government.
4. Evaluate the necessity for a written constitution to set forth the organization of government and to distribute powers among the three different branches of government and the states, or the people.
5. Analyze the events and major conflicts, beliefs, and arguments which led to the addition of the *Bill of Rights* to the *United States Constitution*; and compare the points of view as expressed in *Federalist Papers Number 10 and Number 51* and the writings of the Anti-Federalists including Patrick Henry and George Mason.
6. Analyze the steps of the constitutional amendment process including examples of recent attempts to amend the *United States Constitution* as exemplified in the issues of the *Equal Rights Amendment* and flag desecration.

**Content Standard 3: The student will analyze the fundamental principles of the American system of government.**

1. Explain the concept of popular sovereignty as exercised by the nation’s people who possess the ultimate source of authority.
2. Examine the American system of federalism and evaluate the changes that have occurred in the relationship between the states and the national government over time.
3. Analyze the enumerated powers delegated to the federal government by the states in the *United States Constitution*, the limits placed on the powers of the national government, and the powers of the states including the reserved and concurrent powers.
4. Summarize and explain the relationships and the responsibilities between national and state governments including tribal and local governments.
5. Cite specific textual and visual evidence and summarize how power is separated as well as shared under the American system including the separation of powers and checks and balance, which is designed to prevent abuse of power by any government body at the local, state, tribal, and federal levels.
6. Evaluate the importance of the rule of law and on the sources, purposes, and functions of government, and explain how the rule of law provides for the protection of individual liberties, public order, management of conflict, and assurance of domestic and national security.

7. Analyze the United States government's responsibility to protect minority rights while legitimizing majority rule including the rights of due process and equality under the law.
8. Cite specific textual and visual evidence and compare points of view regarding the shared values and ideals of American political culture as set forth in basic documents and speeches including the *Declaration of Sentiments*, Abraham Lincoln's *Gettysburg Address*, Franklin Roosevelt's *Four Freedoms* speech, and Dr. Martin Luther King, Jr.'s *Letter From Birmingham Jail*.

**Content Standard 4: The student will examine the *United States Constitution* by comparing the legislative, executive, and judicial branches of government as they form and transform American society.**

1. Cite specific textual and visual evidence to explain the purposes expressed in the *Preamble* and how the *United States Constitution* preserves those core principles of American society.
2. Examine the makeup, organization, functions, and authority exercised by the executive, legislative, and judicial branches of government.
  - A. Identify constitutional qualifications for holding public office, the terms of office, and the expressed powers delegated to each branch of the national government including the numbers of members comprising the United States Congress and United States Supreme Court.
  - B. Evaluate the extent to which each branch of government reflects the people's sovereignty including current issues concerning representation such as term limitations and legislative redistricting.
  - C. Describe the process in which public policy is formulated into law including both the constitutional and operational procedures utilized in the modern legislative process.
  - D. Explain why certain provisions of the *United States Constitution* result in tensions among the three branches, and evaluate how the functions of the national government have changed over time through executive actions and judicial interpretation of the necessary and proper clause.
  - E. Compare and contrast the structure of the national branches of government to Oklahoma's state government.
  - F. Apply the principles of limited government, federalism, checks and balances, and separation of powers to the workings of the three branches of government in real world situations including current issues and events.
3. Analyze steps of the political process and its role in the United States' representative government.
  - A. Evaluate the role of political parties, interest groups including organized labor and the media in influencing the public agenda, public opinion, and the actions of government.
  - B. Describe the electoral process including the components of national campaigns, the nominative process, campaign funding, and the Electoral College.
4. Explain the role of the national government in formulating and carrying out domestic policy.
  - A. Identify major sources of revenues for the federal government and how revenue is budgeted.
  - B. Analyze significant policy issues and how they reflect the nation's interests and principles including entitlements and environmental concerns.
5. Investigate the role government plays in the growth and stability of the economy including the inseparable relationship between political and economic freedoms.
  - A. Describe the steps of the budget process including examples of economic trade-offs that occur when addressing competing public needs.
  - B. Determine how the government influences economic growth by using the tools of fiscal and monetary policy.
  - C. Explain how legislation, executive departments, and regulatory agencies affect both economic sectors and individual citizens.
6. Summarize and explain the major responsibilities of the national government in formulating and carrying out foreign policy.
  - A. Evaluate the effectiveness of cooperative efforts exercised through international alliances and organizations from the perspective of the United States including the United Nations, the North Atlantic Treaty Organization, and the *North American Free Trade Agreement*.
  - B. Examine issues of national sovereignty and human rights on contemporary decisions of foreign policy.
7. Identify the issues behind and explain the changes resulting from landmark United States Supreme Court decisions including *Marbury v. Madison* (1803), *McCulloch v. Maryland* (1819), *Plessy v. Ferguson* (1896), *Brown v. Board of Education of Topeka, Kansas* (1954), *Mapp v. Ohio* (1961), *Engel v. Vitale* (1962), *Miranda v. Arizona* (1966), *Furman v. Georgia* (1972), *Roe v. Wade* (1973), *United States v. Nixon* (1974), and *Bush v. Gore* (2000).

**Content Standard 5: Students will be able to evaluate the significance of civic participation in order to insure the preservation of constitutional government.**

1. Distinguish between civic life and private life by defining civic virtue and explaining the individual's duty and responsibility to participate in civic life by voting, serving on juries, volunteering within the community, running for office, serving on a political campaign, paying taxes for governmental services, and respecting lawful authority.
2. Analyze how the structures of government provide citizens opportunities to monitor and influence the actions of the government and hold elected officials accountable.
3. Evaluate historic and contemporary examples of American citizens who have attempted to make the values and principles of the *United States Constitution* a reality.
  - A. Analyze the rights and liberties guaranteed to all citizens in and protected by the *Bill of Rights*, how they are applied and protected within the states through the *14th Amendment*, and sustained through the actions of individual citizens.
  - B. Explain the impact on American politics, both historically and presently, of the racial, religious, socioeconomic, and ethnic diversity of American society including the importance of adhering to constitutional values in managing conflicts over diversity.

## ► High School UNITED STATES HISTORY *The United States: The American Nation in Transformation, 1878 to the Present*

In United States History, the student will describe and analyze effects of the Reconstruction Era amendments to the *United States Constitution*, examine the impact of immigration and the settlement of the American West on American society, and evaluate the economic effects of the industrialization and the changing role of the United States in world affairs at the turn of the twentieth century. The student will also describe the social, cultural, and economic events between the World Wars, investigate and analyze the Great Depression, and the causes, events and effects of World War II, and assess the foreign and domestic policies of the United States since World War II. The student will also examine the 9/11 attacks on New York City and Washington, DC.

**The Common Core History/Social Studies Reading and Writing Literacy Skills are to be integrated throughout all of the content standards and used for instructional delivery of the content.**

ASSESSMENT NOTE: High schools students in United States History for Grades 9-12 will study the time frame of 1878 to the present. However, for the high school ACE United States History End-of-Instruction Examination (EOI), the time frame is approximately 1878-2002, or approximately from the Reconstruction amendments through the terrorist attacks of September 11, 2001 and the immediate effects of those events.

Standard 1 and 2 Social Studies Process and Literacy Skills should be integrated throughout and across the content standards, as well as being used in teaching and assessing the course content at the classroom and district level. At the state level, Standard 1 and 2 Social Studies Process and Literacy Skills be measured and reported within each of the Content Standards 1, 2, 3, 4, 5, and 6. Process skill assessment items will be content-based and reported under each of the content standards. For assessment purposes, each standard will have items using primary and secondary source documents, timelines, maps, charts, graphs, pictures, photographs, and/or political cartoons. There will be a balance of graphic and textual stimulus materials within the various United States History test forms. At least 50 percent of the assessment items will have appropriate pictorial and graphical representations.

An asterisk (\*) has been used to identify Content Standard 7 and the following objectives under that standard that must be assessed by the local school district. All other skills may be assessed by the Oklahoma School Testing Program (OSTP).

### COMMON CORE STATE STANDARDS READING AND WRITING LITERACY IN HISTORY/SOCIAL STUDIES

The Common Core State Standards Reading and Writing Literacy Standards for Literacy in History/Social Studies in the high school contain two grade bands, 9-10 and 11-12. Since school districts have the option of scheduling high school social studies courses at any grade level 9-12, only the CCSS for Reading and Writing for Grades 9-10 have been included in each high school Social Studies course. If a course is taught at the 11th or 12th grade level, then the CCSS for Reading and Writing Grades 11-12 must be used for social studies literacy instruction. A copy of the CCSS for Reading and Writing Grades 11-12 are found in Appendix C.

#### Celebrate Freedom Week

In order to educate Oklahoma students about the sacrifices made for freedom on behalf of the country and the values on which this country was founded, November 11 has been designated “Veterans Day,” and the week in which November 11 falls has been designated “Celebrate Freedom Week” for the public schools of Oklahoma. As part of a social studies class, during Celebrate Freedom Week or during another full school week as determined by the local board of education, appropriate instruction concerning the intent, meaning, and importance of the *Declaration of Independence* and the *United States Constitution* including the *Bill of Rights* in their historic contexts shall occur.

The study of the *Declaration of Independence* is to include the study and the relationship of ideas expressed in that document to subsequent American history

Students in Grades 3-12 shall study and recite the following from the “social contract” selection of the *Declaration of Independence*:

We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness. –That to secure these rights, Governments are instituted among Men, deriving their just powers from the consent of the governed.

The board of education of each public school district shall ensure that each school in its district will on Veterans Day conduct and observe an appropriate Veterans Day Assembly program of at least one class period that remembers and honors American veterans.

**PROCESS AND LITERACY SKILLS**

**Process and Literacy Standard 1: Reading Skills. The student will develop and demonstrate social studies Common Core reading literacy skills.**

**A. Key Ideas and Details**

1. Cite specific textual evidence to support analysis of primary and secondary sources, attending to such features as the date and origin of the information.
2. Determine the central ideas or information of a primary or secondary source; provide an accurate summary of how key events or ideas develop over the course of the text.
3. Analyze in detail a series of events described in a text; determine whether earlier events caused later ones or simply preceded them.

**B. Craft and Structure**

4. Determine the meaning of words and phrases as they are used in a text, including vocabulary describing political, social, or economic aspects of history/social science.
5. Analyze how a text uses structure to emphasize key points or advance an explanation or analysis.
6. Compare the point of view of two or more authors for how they treat the same or similar topics, including which details they include and emphasize in their respective accounts.

**C. Integration of Knowledge and Ideas**

7. Integrate quantitative or technical analysis (e.g., charts, research data) with qualitative analysis in print or digital text.
8. Assess the extent to which the reasoning and evidence in a text support the author’s claims.
9. Compare and contrast treatments of the same topic in several primary and secondary sources.

**D. Range of Reading and Level of Text Complexity**

10. By the end of grade 10, read and comprehend history/social studies texts in the grades 9–10 text complexity band independently and proficiently.

**Process and Literacy Standard 2: Writing Skills. The student will develop and demonstrate Common Core social studies writing literacy skills.**

**A. Text Types and Purposes**

1. Write arguments focused on discipline-specific content.
  - a. Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among the claim(s), counterclaims, reasons, and evidence.

- b. Develop claim(s) and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience’s knowledge level and concerns.

- c. Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.

- d. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.

- e. Provide a concluding statement or section that follows from or supports the argument presented.

2. Write informative/explanatory texts, including the narration of historic events, scientific procedures/experiments, or technical processes.

- a. Introduce a topic and organize ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.

- b. Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience’s knowledge of the topic.

- c. Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts.

- d. Use precise language and domain-specific vocabulary to manage the complexity of the topic and convey a style appropriate to the discipline and context as well as to the expertise of likely readers.

- e. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.

- f. Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).

3. (See note; not applicable as a separate requirement)

**B. Production and Distribution of Writing**

4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

5. Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.

6. Use technology, including the Internet, to produce, publish, and update individual or shared writing products, taking advantage of technology’s capacity to link to other information and to display information flexibly and dynamically.

#### C. Research to Build and Present Knowledge

7. Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.
8. Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation.
9. Draw evidence from informational texts to support analysis, reflection, and research.

#### D. Range of Writing

10. Write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

Note: Students’ narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In history/social studies, students must be able to incorporate narrative accounts into their analyses of individuals or events of historic import.

### CONTENT SKILLS

#### **Content Standard 1: The student will analyze the transformation of the United States through its civil rights struggles, immigrant experiences, settlement of the American West, and the industrialization of American society in the Post-Reconstruction through the Progressive Eras, 1865 to 1900.**

1. Cite specific textual and visual evidence to analyze the post-Reconstruction civil rights struggles.
  - A. Examine the purposes and effects of the *13th, 14th, and 15th Amendments*.
  - B. Assess the impact of the Black Codes, Jim Crow laws, and the actions of the Ku Klux Klan.
2. Integrate specific textual and visual evidence to analyze the impact of Westward Movement and immigration on migration, settlement patterns in American society, economic growth, and Native Americans.
  - A. Summarize the reasons for immigration, shifts in settlement patterns, and the immigrant experience including the *Chinese Exclusion Act*, the impact of Nativism, Americanization, and the immigrant experiences at Ellis Island.
  - B. Examine the rationale behind federal policies toward Native Americans including the establishment of reservations, attempts at assimilation, the end of the Indian Wars at Wounded Knee, and the impact of the *Dawes Act* on tribal sovereignty and land ownership.
  - C. Compare the contrasting view points of Native American leadership’s resistance to United States Indian policies as evidenced by Red Cloud and his Cooper Union speech, Seattle, Quannah Parker, and Chief Joseph as expressed in his *I Will Fight No More Forever* speech.
3. Evaluate the impact of industrialization on the transformation of American society, economy, and politics.
  - A. Analyze the impact of leading industrialists as “robber barons” and as “philanthropists” including John D. Rockefeller and Andrew Carnegie and his *Gospel of Wealth* essay on American society.
  - B. Identify the impact of new inventions and industrial production methods including new technologies by Thomas Edison, Alexander G. Bell, and the Bessemer process.
  - C. Evaluate the contributions of muckrakers including Ida Tarbell and Upton Sinclair that changed government policies regarding child labor, working conditions, and the *Sherman Antitrust Act*.
  - D. Analyze major social reform movements including the Women’s Suffrage and Temperance Movement and their significant leaders including Susan B. Anthony, Alice Paul, and Jane Addams.
  - E. Evaluate the significance of the Labor Movement on the organization of workers including the impact of the Pullman strikes, the Haymarket Riot, and the leadership of Eugene V. Debs.
  - F. Evaluate the rise and reforms of the Progressive Movement including the
    1. Direct primary, initiative petition, referendum, and recall,
    2. Impact of William Jennings Bryan and his *Cross of Gold* speech on the political landscape, and
    3. Conservation of the environment under the leadership of Theodore Roosevelt.

4. Analyze the series of events leading to and the effects of the *16th, 17th, 18th, 19th, and 21st Amendments* to the *United States Constitution*.
  - G. Assess and summarize changing race relations as exemplified in the *Plessy v. Ferguson* case.
  - H. Cite specific textual and visual evidence to compare and contrast early civil rights leadership including the viewpoints of Booker T. Washington, W.E.B. DuBois, and Marcus Garvey in response to rising racial tensions, and the use of poll taxes and literacy tests to disenfranchise blacks and poor whites.
3. Evaluate the long-term impact of America's entry into World War I on national politics, the economy, and society.
    - A. Summarize the transformation of the United States from a position of neutrality to engagement in World War I including the *Zimmerman Note* and the threats to international trade caused by unrestricted submarine warfare.
    - B. Analyze the experiences of the war's homefront including the use of propaganda, women's increased role in industry, the marshaling of industrial production, the Great Migration, the institution of a draft, and the suppression of individual liberties resulting in the First Red Scare.
    - C. Cite specific textual and visual evidence to examine Wilson's foreign policy as proposed in his *Fourteen Points* and the reasons for the nation's return to isolationism including the rejection of the League of Nations.

**Content Standard 2: The student will analyze the expanding role of the United States in international affairs as America was transformed into a world power in the late 19th and early 20th centuries, 1890 to 1920.**

1. Cite specific textual and visual evidence to evaluate the impact of American imperialism on international relations and explain its impact on developing nations.
  - A. Compare and contrast the economic, religious, social, and political rationales for American imperialism including the concept of "white man's burden," the annexation of Hawaii, the impact of Admiral Alfred T. Mahan, and the actions of the Anti-Imperialist League.
  - B. Assess the role of yellow journalism in inciting American desire to go to war with Spain.
  - C. Examine how the Spanish-American War resulted in the rise of the United States as a world power, and led to new territorial acquisitions and national insurrections in Cuba and the Philippines.
  - D. Compare and contrast the foreign policies of Presidents Theodore Roosevelt, William Howard Taft, and Woodrow Wilson including Big Stick Diplomacy, Dollar Diplomacy, Missionary Diplomacy the *Roosevelt Corollary*, military interventionism, and the territorial acquisition and construction of the Panama Canal.
2. Analyze and summarize the 1912 presidential election including the key personalities of President William Howard Taft, Theodore Roosevelt, Woodrow Wilson and Eugene V. Debs; the key issues of dealing with the trusts, the right of women to vote, and trade tariffs; and the impact of the "Bull Moose Party" on the outcome of the election.

**Content Standard 3: The student will analyze the cycles of boom and bust of the 1920s and 1930s on the transformation of American government, the economy, and society.**

1. Examine the economic, political, and social transformations between the World Wars.
  - A. Cite specific textual and visual evidence to describe modern forms of cultural expression including the Harlem Renaissance, the Jazz Age, and "talkies" (movies).
  - B. Describe the rising racial tensions in American society including the resurgence of the Ku Klux Klan, increased lynchings, race riots as typified by the Tulsa Race Riot, and the use of poll taxes and literacy tests to disenfranchise blacks and poor whites.
  - C. Examine growing labor unrest and industry's reactions including the use of sit-down strikes and court injunctions, and why socialism and communism appealed to labor.
  - D. Describe the booming economy based upon access to and easy credit through installment buying of appliances and inventions of modern conveniences including the automobile.
  - E. Assess the impact of the *Indian Citizenship Act of 1924* upon the various Native American tribes.
2. Cite specific textual and visual evidence to analyze the effects of the destabilization of the American economy.
  - A. Identify causes contributing to an unstable economy including the overproduction of agriculture products, greater speculation and buying on margin in the Stock Market, and the government's laissez-faire policy.



- B. Examine the role of the Stock Market Crash and bank failures in weakening both the agricultural and manufacturing sectors of the economy leading to the Great Depression.
  - C. Analyze how President Herbert Hoover's financial policies and massive unemployment as exemplified by the Bonus Army March and Hoovervilles impacted the presidential election of 1932.
  - D. Cite specific textual and visual evidence to compare points of view regarding the economic and social impact of the Great Depression on individuals, families, and the nation.
3. Analyze the impact of the New Deal in transforming the federal government's role in domestic economic policies.
    - A. Assess changing viewpoints regarding the expanding role of government as expressed in President Franklin Roosevelt's *First Inaugural Address* and the *Four Freedoms* speech.
    - B. Examine how national policies addressed the economic crisis including deficit spending, Roosevelt's court packing plan, and the new federal agencies of the Social Security Administration, Federal Deposit Insurance Corporation, Works Progress Administration, and Tennessee Valley Authority.
    - C. Cite specific textual and visual evidence to summarize the causes and impact of the Dust Bowl including the government's responses.

**Content Standard 4: The student will analyze the United States role in international affairs by examining the major causes, events, and effects of the nation's involvement in World War II, 1933 to 1946.**

1. Cite specific textual and visual evidence to examine the transformations in American society and government policy as the nation mobilized for entry into World War II.
  - A. Examine the roles of appeasement and isolationism in the United States' reluctance to respond to Fascist military aggression in Europe and Asia including the *Neutrality Acts* and the Lend-Lease program.
  - B. Evaluate the mobilization for war as stated in President Roosevelt's *Day Which Will Live in Infamy* speech including the role of women and minorities in the war effort, rationing, the internment of Japanese-Americans and the *Korematsu v. United States* decision, and the internment of Americans of German and Italian descent.

2. Cite specific textual and visual evidence to analyze the series of events affecting the outcome of World War II including major battles, military turning points, and key strategic decisions in both the European and Pacific Theaters of operation including Pearl Harbor, the D-Day Invasion, development and use of the atomic bomb, the island-hopping strategy, the Allied conference at Yalta, and the contributions of Generals MacArthur and Eisenhower.
3. Summarize American reactions to the events of the Holocaust resulting in United States participation in the Nuremberg Trials, which held Nazi leaders accountable for war crimes.

**Content Standard 5: The student will analyze foreign and domestic policies during the Cold War, 1945 to 1975.**

1. Cite specific textual and visual evidence to analyze the origins of international alliances and efforts at containment of Communism following World War II.
  - A. Identify the origins of Cold War confrontations between the Soviet Union and the United States including the leadership of President Harry Truman, the postwar division of Berlin, the Berlin Blockade and Airlift, the fall of the Iron Curtain, and the Marshall Plan.
  - B. Describe the role of the United States in the formation of the United Nations, NATO and the resulting Warsaw Pact, and the dividing of the political world into the Western and Soviet spheres of influence.
  - C. Assess the impact and successes of the *Truman Doctrine* including the American military response to the invasion of South Korea.
  - D. Compare and contrast the domestic and international goals of President Kennedy's administration as expressed in his *Inaugural Address* to the subsequent building of the Berlin Wall, the Bay of Pigs Invasion, the Cuban Missile Crisis, and the establishment of the Peace Corps.
2. Cite specific textual and visual evidence to describe events which changed domestic policies during the Cold War and its aftermath.
  - A. Summarize the reasons for the public fear of communist influence within the United States and how politicians capitalized on these threats including the leadership of President Dwight D. Eisenhower, the Army-McCarthy hearings, the Second Red Scare, and the Rosenbergs' spy trials.

- B. Examine the impact of the proliferation of nuclear weapons and the resulting nuclear arms race, the concept of brinkmanship, the doctrine of mutually assured destruction (MAD), and the launching of *Sputnik* and the space race.
3. Cite specific textual and visual evidence to analyze the series of events and long term foreign and domestic consequences of the United States' military involvement in Vietnam including the Domino Theory, the *Gulf of Tonkin Resolution*, the Tet Offensive, the presidential election of 1968, university student protests, expanded television coverage of the war, the *War Powers Act*, and the *26th Amendment*.
4. Cite specific textual and visual evidence to analyze the major events, personalities, tactics, and effects of the Civil Rights Movement.
- A. Assess the effects of President Truman's decision to desegregate the United States armed forces, and the legal attacks on segregation by the NAACP and Thurgood Marshall, the United States Supreme Court decisions in the cases of Ada Lois Sipuel Fisher and George McLaurin, and the differences between *de jure* and *de facto* segregation.
- B. Compare and contrast segregation policies of "separate but equal," disenfranchisement of African Americans through poll taxes, literacy tests, and violence; and the sustained attempts to dismantle segregation including the *Brown v. Board of Education* decision, Rosa Parks and the Montgomery Bus Boycott, the desegregation of Little Rock Central High School, the Oklahoma City lunch counter sit-ins led by Clara Luper, the Freedom Rides, the March on Washington, the Birmingham church bombing, the adoption of the *24th Amendment*, the passage of the *Civil Rights Act of 1964* and the *Voting Rights Act of 1965*, the Selma to Montgomery marches, and the assassination of Dr. Martin Luther King, Jr.
- C. Compare and contrast the view points and the contributions of civil rights leaders and organizations linking them to events of the movement including Dr. Martin Luther King, Jr. and his *I Have a Dream* speech, Malcolm X, NAACP, SCLC, CORE, SNCC, and the tactics used at different times including civil disobedience, non-violent resistance, sit-ins, boycotts, marches, and voter registration drives.
- D. Evaluate the effects the Civil Rights Movement had on other contemporaneous social movements including the Women's Liberation Movement, the United Farm Workers and César Chávez, and the American Indian Movement.
5. Cite specific textual and visual evidence to analyze the ongoing social and political transformations within the United States.
- A. Summarize and examine the United States Supreme Court's use of the incorporation doctrine in applying the *Bill of Rights* to the states, thereby securing and further defining individual rights and civil liberties.
- B. Assess the lasting impact of President Lyndon Johnson's civil rights initiatives, the war on poverty, and the Great Society.
- C. Describe the goals and effectiveness of the Native American movement on tribal identity and sovereignty including the American Indian Movement (AIM), and the Siege at Wounded Knee.
- D. Cite specific textual and visual evidence to compare and contrast the changing roles of women from the Post-war Era through the 1970s including the goals of the Women's Liberation Movement, the National Organization of Women (NOW), the attempts to ratify the *Equal Rights Amendment* (ERA), and the United States Supreme Court's ruling in *Roe v. Wade*.
- E. Analyze the political and economic impact of President Nixon's foreign policies including *détente* and the opening of China.
- F. Evaluate the impact of the Watergate Scandal on executive powers including the role of the media, the *Pentagon Papers*, the first use of the *25th Amendment*, and President Ford's decision to pardon former President Nixon.

**Content Standard 6: The student will analyze the foreign and domestic policies in the contemporary era, 1977 to the present.**

1. Cite specific textual and visual evidence to evaluate President Carter's foreign policy in the Middle East including the *Camp David Accords*, the OPEC oil embargo, and the response to the 1979 Iranian hostage crisis.
2. Analyze the economic and political impact of President Reagan's domestic and foreign policies including Reaganomics, the Iran-Contra Scandal, and Reagan's *Tear Down This Wall* speech in West Berlin.
3. Summarize the series of events leading to the emergence of the United States as the sole superpower following the fall of the Berlin Wall, the reunification of Germany, and the collapse of the Soviet Empire.
4. Describe the goal of President H.W. Bush's foreign policy in forming an international coalition to counter Iraqi aggression in the Persian Gulf.

5. Describe and evaluate the continuing global influence of the United States under the leadership of President Bill Clinton including NAFTA and the NATO interventions to restore stability to the former Yugoslav republics.
  6. Evaluate the rise of terrorism and its impact on the United States including the 1995 bombing of the Murrah Federal Building, the first attack on the World Trade Center Towers in 1993, the attacks on September 11, 2001, the *PATRIOT ACT*, and the creation of the Department of Homeland Security.
2. Examine the ongoing issues of immigration, employment, climate change, environmental pollution, globalization, population growth, race relations, women's issues, healthcare, civic engagement, education, and the rapid development of technology.

An asterisk (\*) has been used to identify Content Standard 7 and the following objectives under that standard that must be assessed by the local school district. All other skills may be assessed by the Oklahoma School Testing Program (OSTP).

**\*Content Standard 7: The student will examine contemporary challenges and successes in meeting the needs of the American citizen and society, 2002 to the present.**

1. Cite specific textual and visual evidence to assess the causes, conduct, and consequences of the United States led wars in Afghanistan and Iraq including President George W. Bush's leadership, the efforts to counter and combat terrorism, and the impact of President Barack Obama's election on the course of the wars.

## ► High School WORLD HISTORY: *Cultural Connections, Turning Points, and Transformation of the World into the Modern Era*

The student will examine the enduring philosophical and religious contributions from the ancient and classical eras to the modern world. The student will examine the impact of the European Renaissance and Reformation, various revolutionary movements, the Industrial Revolution, and the world that the World Wars helped create, the transformation of societies in the Post-World War Two Era, and recent contemporary events and issues.

### COMMON CORE STATE STANDARDS READING AND WRITING LITERACY IN HISTORY/SOCIAL STUDIES

The Common Core State Standards Reading and Writing Literacy Standards for Literacy in History/Social Studies in the high school contain two grade bands, 9-10 and 11-12. Since school districts have the option of scheduling high school social studies courses at any grade level 9-12, only the CCSS for Reading and Writing for Grades 9-10 have been included in each high school Social Studies course. If a course is taught at the 11th or 12th grade level, then the CCSS for Reading and Writing Grades 11-12 must be used for social studies literacy instruction. A copy of the CCSS for Reading and Writing Grades 11-12 are found in Appendix C.

**The Common Core History/Social Studies Reading and Writing Literacy Skills are to be integrated throughout all of the content standards and used for instructional delivery of the content.**

#### Celebrate Freedom Week

In order to educate Oklahoma students about the sacrifices made for freedom on behalf of the country and the values on which this country was founded, November 11 has been designated “Veterans Day,” and the week in which November 11 falls has been designated “Celebrate Freedom Week” for the public schools of Oklahoma. As part of a social studies class, during Celebrate Freedom Week or during another full school week as determined by the local board of education, appropriate instruction concerning the intent, meaning, and importance of the *Declaration of Independence* and the *United States Constitution*, including the *Bill of Rights*, in their historic contexts shall occur.

The study of the *Declaration of Independence* is to include the study and the relationship of ideas expressed in that document to subsequent American history

Students in Grades 3-12 shall study and recite the following from the “social contract” selection of the *Declaration of Independence*:

We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness. –That to secure these rights, Governments are instituted among Men, deriving their just powers from the consent of the governed.

The board of education of each public school district shall ensure that each school in its district will on Veterans Day conduct and observe an appropriate Veterans Day Assembly program of at least one class period that remembers and honors American veterans.

### PROCESS AND LITERACY SKILLS

**Process and Literacy Standard 1: Reading Skills.  
The student will develop and demonstrate social studies Common Core reading literacy skills.**

#### A. Key Ideas and Details

1. Cite specific textual evidence to support analysis of primary and secondary sources, attending to such features as the date and origin of the information.
2. Determine the central ideas or information of a primary or secondary source; provide an accurate summary of how key events or ideas develop over the course of the text.
3. Analyze in detail a series of events described in a text; determine whether earlier events caused later ones or simply preceded them.

#### B. Craft and Structure

4. Determine the meaning of words and phrases as they are used in a text, including vocabulary describing political, social, or economic aspects of history/social science.
5. Analyze how a text uses structure to emphasize key points or advance an explanation or analysis.
6. Compare the point of view of two or more authors for how they treat the same or similar topics, including which details they include and emphasize in their respective accounts.

#### C. Integration of Knowledge and Ideas

7. Integrate quantitative or technical analysis (e.g., charts, research data) with qualitative analysis in print or digital text.
8. Assess the extent to which the reasoning and evidence in a text support the author’s claims.

9. Compare and contrast treatments of the same topic in several primary and secondary sources.

#### D. Range of Reading and Level of Text Complexity

10. By the end of grade 10, read and comprehend history/ social studies texts in the grades 9–10 text complexity band independently and proficiently.

### **Process and Literacy Standard 2: Writing Skills. The student will develop and demonstrate Common Core social studies writing literacy skills.**

#### A. Text Types and Purposes

1. Write arguments focused on discipline-specific content.
  - a. Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among the claim(s), counterclaims, reasons, and evidence.
  - b. Develop claim(s) and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience’s knowledge level and concerns.
  - c. Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.
  - d. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.
  - e. Provide a concluding statement or section that follows from or supports the argument presented.
2. Write informative/explanatory texts, including the narration of historic events, scientific procedures/ experiments, or technical processes.
  - a. Introduce a topic and organize ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.
  - b. Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience’s knowledge of the topic.
  - c. Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts.

- d. Use precise language and domain-specific vocabulary to manage the complexity of the topic and convey a style appropriate to the discipline and context as well as to the expertise of likely readers.
- e. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.
- f. Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).

3. (See note; not applicable as a separate requirement)

#### B. Production and Distribution of Writing

4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
5. Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.
6. Use technology, including the Internet, to produce, publish, and update individual or shared writing products, taking advantage of technology’s capacity to link to other information and to display information flexibly and dynamically.

#### C. Research to Build and Present Knowledge

7. Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.
8. Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation.
9. Draw evidence from informational texts to support analysis, reflection, and research.

#### D. Range of Writing

10. Write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In history/social studies, students must be able to incorporate narrative accounts into their analyses of individuals or events of historic import.

## CONTENT SKILLS

### **Content Standard 1: The student will analyze and summarize the impact on the modern world of the major world religions and the philosophical political principles of ancient and classical societies.**

1. Cite specific textual and visual evidence to evaluate the impact of geography and various trade networks connecting Asia, Europe, and Africa on the spread of religions, philosophies, and political beliefs.
2. Examine the origins, traditions, beliefs, and impact of Judaism on ancient and modern societies including the religious concept of monotheism and its influence into the modern eras.
3. Compare using specific textual evidence the contributions of Greek and Roman philosophers to political ideas using selections from Plato's *Republic*, Aristotle's *Politics*, Cicero's *On the Republic* and *On the Laws*, and their impact on later political thought in Western societies.
4. Examine the origins, traditions, and beliefs of Hinduism and Buddhism, and explain their influence on the civilizations of India, China, and Southeast Asia, and their influence into the modern eras.
5. Examine the origins, traditions, beliefs, and impact of Christianity including its spread under the Roman Empire; its preservation by the Roman Catholic Church; the Byzantines and the Orthodox churches; and its influence into the modern eras.
6. Examine the origins, traditions, beliefs, and impact of Confucianism and Daoism including how those ideas and beliefs influenced Asian civilizations into the modern eras.
7. Examine the origins, traditions, beliefs, and impact of Islam including the religious, political, and economic causes and effects of the Crusades on the spread of Islam, and the influence of Islam into the modern eras.

### **Content Standard 2: The student will analyze patterns of social, economic, political, and cultural changes of the Renaissance and Reformation.**

1. Cite specific textual and visual evidence to assess the significance of the Renaissance on politics and artistic creativity as exemplified by Machiavelli, Michelangelo, and daVinci.
2. Summarize how the theological movements during the Reformation transformed society by comparing the impact of the ideas of Martin Luther and John Calvin.
3. Analyze migration, settlement patterns, and cultural diffusion caused by the competition for resources among European nations during the Age of Exploration including the impact of the Columbian Exchange and the Atlantic slave trade.

### **Content Standard 3: The student will evaluate modern revolutionary movements influenced by the European Age of Absolutism and the Enlightenment including political, economic, and social transformations.**

1. Summarize the establishment and authority exercised by absolute monarchies including Louis XIV, Frederick the Great, and Peter the Great.
2. Compare how scientific theories and technological discoveries including those made by Newton, Copernicus, and Galileo brought about social and cultural changes.
3. Cite specific textual and visual evidence to analyze the impact of the Enlightenment including the theories of John Locke and Adam Smith on modern government and economic institutions.
4. Compare and contrast the causes and lasting impact of England's Glorious Revolution, the American Revolution, and the French Revolution on the decline of monarchy and on the rise of representative government including the impact of the Napoleonic Wars and the resulting Congress of Vienna.
5. Summarize the influence and global impact of emerging democratic ideals on the Latin American and Caribbean revolutions including Haiti, Mexico, and Bolivia.

**Content Standard 4: The student will evaluate the global transformation brought about by the Industrial Revolution and the World Wars.**

1. Summarize the impact of massive social and economic changes as a result of industrialization including Marxist criticisms of capitalism.
2. Cite specific textual and visual evidence to explain the rationales and consequences of imperialism on Asia, Africa, and the Americas including colonization and the exploitation of natural resources and peoples.
3. Analyze socialism, communism, and the Bolshevik Revolution as responses to market economies.
4. Evaluate the forces of nationalism and militarism, as well as the systems of alliances as causes of World War I.
5. Examine the causes of World War II including the failure of the *Treaty of Versailles*, the impact of the Great Depression, and the rise of totalitarian regimes in the Soviet Union, Germany, Italy, and Japan.
6. Cite specific textual and visual evidence to analyze World War II including the leadership of Winston Churchill, Franklin Roosevelt, Josef Stalin, Adolf Hitler, Benito Mussolini, and Hideki Tōjō, the key strategic decisions, and the war's significant turning points.
7. Evaluate the effects of World War II including military and economic power shifts, purposes of the United Nations and NATO, and the origins and escalation of the Cold War.
8. Cite specific textual and visual evidence to examine the causes, course, and effects of the Holocaust; and compare and contrast eyewitness accounts of camp inmates, survivors, liberators, and perpetrators; and, summarize world responses resulting in the Nuremberg Trials and the move to establish a Jewish homeland in Palestine.

**Content Standard 5: The student will evaluate post World War II regional events leading to the transformations of the modern world.**

1. Cite specific textual and visual evidence to describe the creation of the modern state of Israel, the ongoing regional disputes with its Arab neighbors, the continuing hostilities between Iran and Iraq, and the impact of significant regional leaders including Golda Meir, Anwar Sadat, Yasser Arafat, Saddam Hussein, and the Ayatollah Khomeini.
2. Compare the Chinese Communist Revolution under the leadership of Mao Zedong, the effects of the Great Leap Forward and the Cultural Revolution to recent attempts toward economic and democratic reforms including the Tiananmen Square demonstrations, limited privatization, and foreign investments.

3. Cite specific textual and visual evidence to examine the origins of India as a modern world power by tracing the struggle for independence achieved through Mohandas K. Gandhi's non-violent civil disobedience movement, the development of India's industrial and service-oriented economy, and the ongoing threat of nuclear warfare between India and Pakistan.
4. Evaluate the effects of Poland's Solidarity Movement, Soviet President Mikhail Gorbachev's policies of the *perestroika* and *glasnost*, the fall of the Berlin Wall, the reunification of Germany, the collapse of Communism and the breakup of the Soviet Union that resulted in new independent countries.
5. Assess the impact of continuing African independence movements on human rights and the global expansion of democracy including the effects of Pan-Africanism on changing political boundaries, Kwame Nkrumah's struggle for self-government in Ghana, and South Africa dismantling its apartheid system under the leadership of Nelson Mandela and Desmond Tutu.
6. Compare and contrast multiple perspectives to examine the religious, ethnic and political origins, as well as the lasting impact of modern genocide and conflicts including Northern Ireland's Troubles, acts of genocide by the Khmer Rouge in Cambodia, ethnic-cleansing in the Balkans, Rwanda's mass murders, and the ethnic and religious crisis in Darfur.

**Content Standard 6: The student will evaluate contemporary global issues and challenges.**

1. Describe the ongoing impact of interdependence on the world's economies resulting in the creation and growth of multinational organizations including the challenges faced by the European Economic Community, the cooperative efforts of OPEC, the emergence of the Pacific Rim economy, and the roles of the World Bank and World Trade Organization.
2. Cite specific textual and visual evidence to examine the changing patterns of population growth, the cycle of disease and poverty, the impact of the Green Revolution on future food supplies, and the status of women in developing regions.
3. Cite specific textual and visual evidence to describe the impact of ongoing cultural diffusion as a result of the development of mass communication, social media, transportation systems, and global trade.
4. Describe the rise of international terrorism including the causes and effects of the attacks on the World Trade Center Towers in 1993, the attacks on 9/11 in 2001, and other acts of international terrorism including London, Madrid, and Mumbai, and analyze the policies and actions of world powers to counter and combat terrorism including the wars in Afghanistan and Iraq.

## ► High School WORLD HUMAN GEOGRAPHY *The Why of Where: Places, Patterns of Settlement, and Global Interactions*

Human Geography is the study of spatial patterns of the human and physical dimensions of the world. Students will explore, describe, analyze, and seek to understand the spatial arrangement of objects and people on Earth’s surface. Students will use the skills and tools of geography to examine the world and its inhabitants from a spatial perspective, solve problems of geographic dimensions and make informed decisions based upon solid research.

### COMMON CORE STATE STANDARDS READING AND WRITING LITERACY IN HISTORY/SOCIAL STUDIES

The Common Core State Standards Reading and Writing Literacy Standards for Literacy in History/Social Studies in the high school contain two grade bands, 9-10 and 11-12. Since school districts have the option of scheduling high school social studies courses at any grade level 9-12, only the CCSS for Reading and Writing for Grades 9-10 have been included in each high school Social Studies course. If a course is taught at the 11th or 12th grade level, then the CCSS for Reading and Writing Grades 11-12 must be used for social studies literacy instruction. A copy of the CCSS for Reading and Writing Grades 11-12 are found in Appendix C.

**The Common Core History/Social Studies Reading and Writing Literacy Skills are to be integrated throughout all of the content standards and used for instructional delivery of the content.**

#### Celebrate Freedom Week

In order to educate Oklahoma students about the sacrifices made for freedom on behalf of the country and the values on which this country was founded, November 11 has been designated “Veterans Day,” and the week in which November 11 falls has been designated “Celebrate Freedom Week” for the public schools of Oklahoma. As part of a social studies class, during Celebrate Freedom Week or during another full school week as determined by the local board of education, appropriate instruction concerning the intent, meaning, and importance of the *Declaration of Independence* and the *United States Constitution*, including the *Bill of Rights*, in their historic contexts shall occur.

The study of the *Declaration of Independence* is to include the study and the relationship of ideas expressed in that document to subsequent American history.

Students in Grades 3-12 shall study and recite the following from the “social contract” selection of the *Declaration of Independence*:

We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness. –That to secure these rights, Governments are instituted among Men, deriving their just powers from the consent of the governed.

The board of education of each public school district shall ensure that each school in its district will on Veterans Day conduct and observe an appropriate Veterans Day Assembly program of at least one class period that remembers and honors American veterans.

### PROCESS AND LITERACY SKILLS

**Process and Literacy Standard 1: Reading Skills.  
The student will develop and demonstrate social studies Common Core reading literacy skills.**

#### A. Key Ideas and Details

1. Cite specific textual evidence to support analysis of primary and secondary sources, attending to such features as the date and origin of the information.
2. Determine the central ideas or information of a primary or secondary source; provide an accurate summary of how key events or ideas develop over the course of the text.
3. Analyze in detail a series of events described in a text; determine whether earlier events caused later ones or simply preceded them.

#### B. Craft and Structure

4. Determine the meaning of words and phrases as they are used in a text, including vocabulary describing political, social, or economic aspects of history/social science.
5. Analyze how a text uses structure to emphasize key points or advance an explanation or analysis.
6. Compare the point of view of two or more authors for how they treat the same or similar topics, including which details they include and emphasize in their respective accounts.

#### C. Integration of Knowledge and Ideas

7. Integrate quantitative or technical analysis (e.g., charts, research data) with qualitative analysis in print or digital text.
8. Assess the extent to which the reasoning and evidence in a text support the author’s claims.



9. Compare and contrast treatments of the same topic in several primary and secondary sources.

#### D. Range of Reading and Level of Text Complexity

10. By the end of grade 10, read and comprehend history/ social studies texts in the grades 9–10 text complexity band independently and proficiently.

### **Process and Literacy Standard 2: Writing Skills. The student will develop and demonstrate Common Core social studies writing literacy skills.**

#### A. Text Types and Purposes

1. Write arguments focused on discipline-specific content.
  - a. Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among the claim(s), counterclaims, reasons, and evidence.
  - b. Develop claim(s) and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience's knowledge level and concerns.
  - c. Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.
  - d. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.
  - e. Provide a concluding statement or section that follows from or supports the argument presented.
2. Write informative/explanatory texts, including the narration of historic events, scientific procedures/ experiments, or technical processes.
  - a. Introduce a topic and organize ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.
  - b. Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.
  - c. Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts.

- d. Use precise language and domain-specific vocabulary to manage the complexity of the topic and convey a style appropriate to the discipline and context as well as to the expertise of likely readers.
- e. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.
- f. Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).

3. (See note; not applicable as a separate requirement)

#### B. Production and Distribution of Writing

4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
5. Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.
6. Use technology, including the Internet, to produce, publish, and update individual or shared writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically.

#### C. Research to Build and Present Knowledge

7. Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.
8. Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation.
9. Draw evidence from informational texts to support analysis, reflection, and research.

#### D. Range of Writing

10. Write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

Note: Students’ narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In history/social studies, students must be able to incorporate narrative accounts into their analyses of individuals or events of historic import.

**CONTENT SKILLS**

**Content Standard 1: The student will cite textual and visual evidence including maps and other geographic representations, tools and technologies to acquire, research, process, and solve problems from a spatial perspective.**

1. Analyze key concepts underlying the geographical perspectives of location, space, place, scale, pattern, regionalization, and globalization.
2. Utilize geographic skills to understand and analyze the spatial organization of people, places, and environments on the Earth’s surface.
3. Define regions and evaluate the regionalization process to characterize and analyze changing interconnections among places.
4. Utilize geographic technologies of GIS, remote sensing, and GPS sources of geographical data including census data, population pyramids, climographs, cartagrams, and satellite imagery.

**Content Standard 2: The student will evaluate specific textual and visual evidence to analyze how human population is organized geographically in order to understand the cultural, political, and economic systems of the world.**

1. Analyze geographic data measuring population including density; distribution; patterns of composition: age, sex, race, and ethnicity; and population trends and projections.
2. Describe and summarize the push and pull theory of migration and its impact on human capital and demographic transitions including the research of major voluntary and involuntary migrations.
3. Compare and contrast the impact of population policies on the patterns of fertility, mortality, and health.

**Content Standard 3: The student will evaluate textual and visual evidence to analyze the components and regional variations of cultural patterns and processes.**

1. Assess the spatial dimensions of culture as defined by language, religion, race, ethnicity, and gender.
2. Analyze and summarize the role the environment plays in determining a region’s culture.
3. Explain the processes of cultural diffusion, acculturation, assimilation, and globalization regarding their impact on defining a region.
4. Compare and contrast the world’s major cultural landscapes to analyze cultural differences, cultural identity, social mores and sets of beliefs which determine a sense of place.
5. Summarize the impact of the world’s major religions of Buddhism, Christianity, Daoism, Hinduism, Islam, and Judaism on modern societies.

**Content Standard 4: The student will evaluate specific textual and visual evidence to explain the political organization of space.**

1. Describe and summarize the different forces that shape the evolution of the contemporary world’s political map including the rise of nation-states.
2. Analyze the concept of territoriality, the nature and meaning of boundaries, and their influence on identity, interaction, and exchange.
3. Compare and contrast the world’s political patterns of organization including federal and unitary states.
4. Examine changes and challenges to political/territorial arrangements, the changing nature of sovereignty, and evolution of contemporary political patterns.
5. Evaluate how the forces of cooperation and conflict among people influence the division and control of territory and resources.

**Content Standard 5: The student will evaluate specific textual and visual evidence to analyze agricultural and rural land use.**

1. Examine the origin and diffusion of agriculture including the Neolithic Revolution and the Green Revolution.
2. Describe and summarize the characteristics of modern commercial agriculture including major production regions, variations within major zones, and effects of markets.
3. Analyze settlement patterns associated with major agricultural regions and linkages among regions of food production and consumption.
4. Research and describe the impact of agricultural practices including irrigation, conservation, desertification, deforestation, organic farming, pesticides and herbicides, and genetic modification on the environment and the quality of life.
5. Examine common characteristics of rural communities including the impact of the environment on location; the political, economic, and cultural functions of rural communities; the types of transportation, communication, and trade linkages among rural areas; and the impact of modern migration to urban centers.

**Content Standard 6: The student will evaluate specific textual and visual evidence to analyze the impact of industrialization on economic development.**

1. Examine the changing roles of natural resources, energy, and technology that resulted in the Industrial Revolution.
2. Evaluate the impact of industrialization and government policies of both market and command economic systems on the availability and use of natural resources, environmental concerns, and sustainable development.
3. Compare and contrast contemporary patterns of industrialization and development in selected regions of the world including the Pacific Rim, Central Asia, and the Middle East.
4. Analyze why some economies achieve rapid growth while other economies with similar resources struggle to reach developed status.
5. Summarize common characteristics of developed nations including variations in levels of development, modern patterns of deindustrialization and economic restructuring, globalization, and international division of labor.

**Content Standard 7: The student will evaluate specific textual and visual evidence to analyze cities and urban land use.**

1. Examine the origin, development, and character of cities including the impact of the environment on location; the political, economic, and cultural functions of cities; historical distribution of cities; and the types of transportation, communication, and trade linkages among cities.
2. Analyze contemporary patterns of rural migration upon urban development including the concept of suburbanization, edge cities, megacities, and global cities.
3. Describe the factors that impact cities over time including uneven development, changing economic and demographic structures, transportation and infrastructure, housing, and urban planning.





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# SOCIAL STUDIES

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OKLAHOMA  
**ACADEMIC**  
STANDARDS



**OKLAHOMA**  
STATE DEPARTMENT *of* EDUCATION

— JOY HOFMEISTER —  
STATE SUPERINTENDENT *of* PUBLIC INSTRUCTION



# OKLAHOMA

STATE DEPARTMENT *of* EDUCATION

— JOY HOFMEISTER —

STATE SUPERINTENDENT *of* PUBLIC INSTRUCTION

# APPENDIX B—COMMITTEE MEMBERSHIP





## ■ OKLAHOMA TECHNICAL ADVISORY COMMITTEE

The Oklahoma Technical Advisory Committee is comprised of five leading, national experts in the fields of large scale assessment and educational research. Each member provides Oklahoma with sound input to assure validity and reliability of all technical and policy procedures throughout development and implementation of the Oklahoma School Testing Program assessments. The committee provides additional oversight of testing contractors and input to the State Board of Education on state-of-the-art technical/statistical information on assessment and accountability issues and trends.

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### **John M. Keene** (Committee Member since March 2003)

Dr. Keene is the owner of *Assessment and Evaluation Services* which provide assessment and evaluation services and consultation to states and large school districts. His work is primarily with large scale testing programs. Dr. Keene has also served as the Vice President, Director of Measurement and Development for the *Riverside Publishing Company*, Director, Test Development for *Science Research Associates*, and Director, Psychometric and Applied Research Group with the *Psychological Corporation*. Dr. Keene received a Ph.D. in Educational Psychology from Indiana University.

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### **Robert A. Terry** (Committee Member since March 2003)

Dr. Terry is a professor of psychology at the University of Oklahoma. He has served as an active member of the American Educational Research Association review panel. Dr. Terry is currently researching measurement and methodological issues in sociometry as well as longitudinal data analysis. He has written and edited several published articles pertaining to statistics and testing, developmental psychology, and applied psychological measurement. Dr. Terry received a Ph.D. in Quantitative Psychology from the University of North Carolina at Chapel Hill.

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### **H. Gary Cook** (Committee Member since January 2013)

Dr. H. Gary Cook directs research for the WIDA Consortium and is a research scientist attached to the Wisconsin Center for Education Research. Dr. Cook received his Ph.D. in Measurement and Quantitative Methods from Michigan State University. He has a Masters in Teaching English as a Second Language and a Bachelor's in linguistics from the University of Hawai'i at Mānoa. He has served in educational leadership or research positions in private industry, in an urban public school district, in a state department of education, and at the university level. He is an experienced Federal Peer Reviewer for *NCLB* and serves on several state and national technical advisory committees. His recent research and publication interests have focused on the relationship between English language proficiency and content assessments, standards alignment, policy issues associated with Title III accountability, and applying growth modeling techniques to address key educational questions for English language learners.

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**John F. Olson** (Committee Member since January 2013)

Dr. John F. Olson is President of the consulting business he founded in 2006, Olson Educational Measurement & Assessment Services (OEMAS), which provides technical assistance and support to states, school districts, the U.S. Department of Education, Ministries of Education in other countries, CCSSO, Caveon Test Security, testing companies, researchers, and others. He has more than 30 years of experience providing consulting on a variety of measurement and statistical issues for international, national, state, and local assessment programs. Dr. Olson also currently serves as senior partner for the Assessment Solutions Group (ASG), which he co-founded in 2008. The mission of ASG is to help states and local districts maximize value throughout the assessment procurement and implementation process via service offerings in RFP preparation, bid analysis and proposal evaluation, cost analysis, price negotiations, and ongoing program and contract management. Previously, he has served as Vice President for Psychometrics and Research Services at Harcourt Assessment, Director of Assessment for CCSSO and the SCASS projects, Deputy Director of the Center for Education Assessment at American Institutes for Research (AIR), Senior Research Scientist with the Education Statistics Services Institute (ESSI), and in a number of leadership roles for NAEP at the Educational Testing Service (ETS). Olson holds a Ph.D. in educational statistics and measurement from the University of Nebraska – Lincoln.

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**Marianne Perie** (Committee Member since January 2013)

Dr. Marianne Perie is the co-director of the Center for Educational Testing and Evaluation at the University of Kansas. In that role she oversees the Kansas state assessment programs, the Career Pathways Assessment, two grants, and provides technical support on the Dynamic Learning Maps consortium. Previously, she was a Senior Associate with the National Center for the Improvement of Educational Assessment, a small non-profit organization that specializes in state-level assessment and accountability issues. In that role, she provided technical assistance to over 16 states and territories, working on state accountability issues under the 2001 ESEA, No Child Left Behind, the 2009 Race to the Top, and the 2011, ESEA Flexibility Requests. She has provided technical assistance to multiple states through contracts with USED, CCSSO, and directly between the state and the Center. She advised two of the national consortia developing multi-state summative assessments, focusing particularly on defining the performance levels and designing a test that provides maximum information at those levels.. Prior to joining the Center, she worked on state and district assessment contracts, the National Assessment of Educational Progress (NAEP), and international assessments as an employee of the American Institutes for Research (1995-2003) and the Educational Testing Service (2003-2006).



# APPENDIX C—TEST BLUEPRINTS



# Oklahoma School Testing Program

## Grade 3 Mathematics – Test Blueprint

### School Year 2014-2015

The blueprint describes the content and structure of an assessment and defines the ideal number of test items and actual number of items by standard and objective of the Priority Academic Student Skills/ Oklahoma Academic Standards (PASS/OAS).

Standards and Objectives	Ideal Number of Items	Ideal Percentage of Items	Actual Number of Items
<b>1.0 Algebraic Reasoning: Patterns &amp; Relationships</b>	<b>7</b>	<b>14%</b>	<b>7</b>
1.1 Algebra Patterns	2		2
1.2 Equations	2		2
1.3 Number Properties	3		3
<b>2.0 Number Sense and Operation</b>	<b>20</b>	<b>40%</b>	<b>20</b>
2.1 Number Sense	10		10
2.2 Number Operations	10		10
<b>3.0 Geometry</b>	<b>7</b>	<b>14%</b>	<b>7</b>
3.1 Properties of Shapes	3		3
3.2 Spatial Reasoning	2		2
3.3 Coordinate Geometry	2		2
<b>4.0 Measurement</b>	<b>9</b>	<b>18%</b>	<b>9</b>
4.1 Measurement	4		4
4.2 Time and Temperature	2		2
4.3 Money	3		3
<b>5.0 Data Analysis</b>	<b>7</b>	<b>14%</b>	<b>7</b>
5.1 Data Analysis	4		4
5.2 Probability	3		3
<b>Total Test</b>	<b>50</b>	<b>100%</b>	<b>50</b>

*(Please note this blueprint does not include items that may be field-tested.)*

- € A minimum of 6 items is required to report a standard, and a minimum of 4 items is required to report results for an objective.

# Oklahoma School Testing Program

## Grade 4 Mathematics – Test Blueprint

### School Year 2014-2015

The blueprint describes the content and structure of an assessment and defines the ideal number of test items and actual number of items by standard and objective of the Priority Academic Student Skills/ Oklahoma Academic Standards (PASS/OAS).

Standards and Objectives	Ideal Number of Items	Ideal Percentage of Items	Actual Number of Items
<b>1.0 Algebraic Reasoning: Patterns and Relationships</b>	<b>7</b>	<b>14%</b>	<b>7</b>
1.1 Algebra Patterns	3		3
1.2 Equations	2		2
1.3 Number Properties	2		2
<b>2.0 Number Sense and Operation</b>	<b>18</b>	<b>36%</b>	<b>18</b>
2.1 Number Sense	8		8
2.2 Number Operations	10		10
<b>3.0 Geometry</b>	<b>9</b>	<b>18%</b>	<b>9</b>
3.1 Lines	2		2
3.2 Angles	2		2
3.3 Polygons	3		2
3.4 Transformations	2		3
<b>4.0 Measurement</b>	<b>9</b>	<b>18%</b>	<b>9</b>
4.1 Measurement	5		5
4.2 Time and Temperature	2		2
4.3 Money	2		2
<b>5.0 Data Analysis</b>	<b>7</b>	<b>14%</b>	<b>7</b>
5.1 Data Analysis	2		2
5.2 Probability	3		3
5.3 Central Tendency	2		2
<b>Total Test</b>	<b>50</b>	<b>100%</b>	<b>50</b>

*(Please note this blueprint does not include items that may be field-tested.)*

- € A minimum of 6 items is required to report a standard, and a minimum of 4 items is required to report results for an objective.

# Oklahoma School Testing Program

## Grade 5 Mathematics – Test Blueprint

### School Year 2014-2015

The blueprint describes the content and structure of an assessment and defines the ideal number of test items and actual number of items by standard and objective of the Priority Academic Student Skills/ Oklahoma Academic Standards (PASS/OAS).

Standards and Objectives	Ideal Number of Items	Ideal Percentage of Items	Actual Number of Items
<b>1.0 Algebraic Reasoning: Patterns and Relationships</b>	<b>13</b>	<b>26%</b>	<b>13</b>
1.1 Algebra Patterns	5		5
1.2 Equations	4		4
1.3 Number Properties	4		4
<b>2.0 Number Sense and Operation</b>	<b>16</b>	<b>32%</b>	<b>16</b>
2.1 Number Sense	8		8
2.2 Number Operations	8		8
<b>3.0 Geometry</b>	<b>7</b>	<b>14%</b>	<b>7</b>
3.1 Circles and Polygons	4		4
3.2 Angles	3		3
<b>4.0 Measurement</b>	<b>7</b>	<b>14%</b>	<b>7</b>
4.1 Measurement	5		5
4.2 Money	2		2
<b>5.0 Data Analysis</b>	<b>7</b>	<b>14%</b>	<b>7</b>
5.1 Data Analysis	3		3
5.2 Probability	2		2
5.3 Central Tendency	2		2
<b>Total Test</b>	<b>50</b>	<b>100%</b>	<b>50</b>

*(Please note this blueprint does not include items that may be field-tested.)*

- € A minimum of 6 items is required to report a standard, and a minimum of 4 items is required to report results for an objective.



# Oklahoma School Testing Program Grade 6 Mathematics – Test Blueprint School Year 2014-2015

The blueprint describes the content and structure of an assessment and defines the ideal number of test items and actual number of items by standard and objective of the Priority Academic Student Skills/ Oklahoma Academic Standards (PASS/OAS).

Standards and Objectives	Ideal Number of Items	Ideal Percentage of Items	Actual Number of Items
<b>1.0 Algebraic Reasoning: Patterns and Relationships</b>	<b>13</b>	<b>26%</b>	<b>13</b>
1.1 Algebra Patterns	4		4
1.2 Expressions and Equations	4		4
1.3 Number Properties	3		3
1.4 Solving Equations	2		2
<b>2.0 Number Sense and Operation</b>	<b>15</b>	<b>30%</b>	<b>15</b>
2.1 Number Sense	5		5
2.2 Number Operations	10		10
<b>3.0 Geometry</b>	<b>8</b>	<b>16%</b>	<b>8</b>
3.1 Three Dimensional Figures	2		2
3.2 Congruent and Similar Figures	2		2
3.3 Coordinate Geometry	4		4
<b>4.0 Measurement</b>	<b>7</b>	<b>14%</b>	<b>7</b>
4.1 Circles	4		4
4.2 Conversions	3		3
<b>5.0 Data Analysis</b>	<b>7</b>	<b>14%</b>	<b>7</b>
5.1 Data Analysis	3		3
5.2 Probability	2		2
5.3 Central Tendency	2		2
<b>Total Test</b>	<b>50</b>	<b>100%</b>	<b>50</b>

*(Please note this blueprint does not include items that may be field-tested.)*

- € A minimum of 6 items is required to report a standard, and a minimum of 4 items is required to report results for an objective.

# Oklahoma School Testing Program

## Grade 7 Mathematics – Test Blueprint

### School Year 2014-2015

The blueprint describes the content and structure of an assessment and defines the ideal number of test items and actual number of items by standard and objective of the Priority Academic Student Skills/ Oklahoma Academic Standards (PASS/OAS).

Standards and Objectives	Ideal Number of Items	Ideal Percentage of Items	Actual Number of Items
<b>1.0 Algebraic Reasoning: Patterns and Relationships</b>	<b>15</b>	<b>30%</b>	<b>15</b>
1.1 Linear Relationships	5		5
1.2 Solving Equations	5		5
1.3 Solving and Graphing Inequalities	5		5
<b>2.0 Number Sense and Operation</b>	<b>11</b>	<b>22%</b>	<b>11</b>
2.1 Number Sense	5		5
2.2 Number Operations	6		6
<b>3.0 Geometry</b>	<b>8</b>	<b>16%</b>	<b>8</b>
3.1 Classifying Figures	1 - 3		2
3.2 Lines and Angles	1 - 3		2
3.3 Transformations	4		4
<b>4.0 Measurement</b>	<b>9</b>	<b>18%</b>	<b>9</b>
4.1 Perimeter and Area	5		5
4.2 Circles	2		2
4.3 Composite Figures	2		2
<b>5.0 Data Analysis</b>	<b>7</b>	<b>14%</b>	<b>7</b>
5.1 Data Analysis	2		2
5.2 Probability	2		2
5.3 Central Tendency	3		3
<b>Total Test</b>	<b>50</b>	<b>100%</b>	<b>50</b>

*(Please note this blueprint does not include items that may be field-tested.)*

- € A minimum of 6 items is required to report a standard, and a minimum of 4 items is required to report results for an objective.

# Oklahoma School Testing Program Grade 8 Mathematics – Test Blueprint School Year 2014-2015

The blueprint describes the content and structure of an assessment and defines the ideal number of test items and actual number of items by standard and objective of the Priority Academic Student Skills/ Oklahoma Academic Standards (PASS/OAS).

Standards and Objectives	Ideal Number of Items	Ideal Percentage of Items	Actual Number of Items
<b>1.0 Algebraic Reasoning: Patterns and Relationships</b>	<b>16</b>	<b>32%</b>	<b>16</b>
1.1 Equations	10 - 12		11
1.2 Inequalities	4 - 6		5
<b>2.0 Number Sense and Operation</b>	<b>11</b>	<b>22%</b>	<b>11</b>
2.1 Number Sense	3 - 4		4
2.2 Number Operations	7 - 8		7
<b>3.0 Geometry</b>	<b>9</b>	<b>18%</b>	<b>9</b>
3.1 Three Dimensional Figures	5		5
3.2 Pythagorean Theorem	4		4
<b>4.0 Measurement</b>	<b>7</b>	<b>14%</b>	<b>7</b>
4.1 Surface Area and Volume	3		3
4.2 Ratio and Proportions	2		1
4.3 Composite Figures	2		3
<b>5.0 Data Analysis</b>	<b>7</b>	<b>14%</b>	<b>7</b>
5.1 Data Analysis	3		3
5.3 Central Tendency	4		4
<b>Total Test</b>	<b>50</b>	<b>100%</b>	<b>50</b>

*(Please note this blueprint does not include items that may be field-tested.)*

- € A minimum of 6 items is required to report a standard, and a minimum of 4 items is required to report results for an objective.

# Oklahoma School Testing Program

## Grade 3 Reading – Test Blueprint

### School Year 2014-2015

The blueprint describes the content and structure of an assessment and defines the ideal number of test items and actual number of test items by standard and objective of the Priority Academic Student Skills/ Oklahoma Academic Standards (PASS/OAS).

Standards and Objectives	Ideal Number of Items	Ideal Percentage of Items	Actual Number of Items Spring 2015
<b>2.0 Vocabulary</b>	<b>12</b>	<b>24%</b>	<b>12</b>
2.1 Words in Context	2 - 4		1
2.2 Affixes, Roots, and Stems	2 - 4		3
2.3 Synonyms, Antonyms, and Homonyms	2 - 4		5
2.4 Using Resource Materials	2 - 4		3
<b>4.0 Comprehension/Critical Literacy</b>	<b>24</b>	<b>48%</b>	<b>24</b>
4.1 Literal Understanding	5		4
4.2 Inferences and Interpretation	7		10
4.3 Summary and Generalization	6		3
4.4 Analysis and Evaluation	6		7
<b>5.0 Literature</b>	<b>8</b>	<b>16%</b>	<b>8</b>
5.2 Literary Elements	3 - 4		3
5.3 Figurative Language/Sound Devices	4 - 5		5
<b>6.0 Research and Information</b>	<b>6</b>	<b>12%</b>	<b>6</b>
6.1 Accessing Information	6		6
<b>Total Test</b>	<b>50</b>	<b>100%</b>	<b>50</b>

*(Please note this blueprint does not include items that may be field-tested.)*

- A minimum of 6 items is required to report a standard, and a minimum of 4 items is required to report results for an objective.

# Oklahoma School Testing Program

## Grade 4 Reading – Test Blueprint

### School Year 2014-2015

The blueprint describes the content and structure of an assessment and defines the ideal number of test items and actual number of test items by standard and objective of the Priority Academic Student Skills/ Oklahoma Academic Standards (PASS/OAS).

Standards and Objectives	Ideal Number of Items	Ideal Percentage of Items	Actual Number of Items Spring 2015
<b>1.0 Vocabulary</b>	<b>12</b>	<b>24%</b>	<b>12</b>
1.1 Words in Context	4		5
1.2 Affixes, Roots, and Stems	4		3
1.3 Synonyms, Antonyms, and Homonyms	4		4
<b>3.0 Comprehension/Critical Literacy</b>	<b>23</b>	<b>46%</b>	<b>23</b>
3.1 Literal Understanding	4		7
3.2 Inferences and Interpretation	6		7
3.3 Summary and Generalization	7		5
3.4 Analysis and Evaluation	6		4
<b>4.0 Literature</b>	<b>9</b>	<b>18%</b>	<b>9</b>
4.2 Literary Elements	5		4
4.3 Figurative Language/Sound Devices	4		5
<b>5.0 Research and Information</b>	<b>6</b>	<b>12%</b>	<b>6</b>
5.1 Accessing Information	6		6
<b>Total Test</b>	<b>50</b>	<b>100%</b>	<b>50</b>

*(Please note this blueprint does not include items that may be field-tested.)*

- A minimum of 6 items is required to report a standard, and a minimum of 4 items is required to report results for an objective.

# Oklahoma School Testing Program

## Grade 5 Reading – Test Blueprint

### School Year 2014-2015

The blueprint describes the content and structure of an assessment and defines the ideal number of test items and actual number of test items by standard and objective of the Priority Academic Student Skills/ Oklahoma Academic Standards (PASS/OAS).

Standards and Objectives	Ideal Number of Items	Ideal Percentage of Items	Actual Number of Items
<b>1.0 Vocabulary</b>	<b>12</b>	<b>24%</b>	<b>12</b>
1.1 Words in Context	4		3
1.2 Affixes, Roots, and Stems	4		6
1.3 Synonyms, Antonyms, and Homonyms	4		3
<b>3.0 Comprehension/Critical Literacy</b>	<b>20</b>	<b>40%</b>	<b>20</b>
3.1 Literal Understanding	4		2
3.2 Inferences and Interpretation	4 - 6		8
3.3 Summary and Generalization	4 - 6		5
3.4 Analysis and Evaluation	4 - 6		5
<b>4.0 Literature</b>	<b>12</b>	<b>24%</b>	<b>12</b>
4.1 Literary Genre	4		4
4.2 Literary Elements	4		2
4.3 Figurative Language/Sound Devices	4		6
<b>5.0 Research and Information</b>	<b>6</b>	<b>12%</b>	<b>6</b>
5.1 Accessing Information	2 - 4		5
5.2 Interpreting Information	2 - 4		1
<b>Total Test</b>	<b>50</b>	<b>100%</b>	<b>50</b>

*(Please note this blueprint does not include items that may be field-tested.)*

- A minimum of 6 items is required to report a standard, and a minimum of 4 items is required to report results for an objective.

# Oklahoma School Testing Program

## Grade 6 Reading – Test Blueprint

### School Year 2014-2015

The blueprint describes the content and structure of an assessment and defines the ideal number of test items and actual number of test items by standard and objective of the Priority Academic Student Skills/ Oklahoma Academic Standards (PASS/OAS).

Standards and Objectives	Ideal Number of Items	Ideal Percentage of Items	Actual Number of Items
<b>1.0 Vocabulary</b>	<b>8</b>	<b>16%</b>	<b>8</b>
1.1 Words in Context	4		5
1.2 Word Origins	4		3
<b>3.0 Comprehension/Critical Literacy</b>	<b>20</b>	<b>40%</b>	<b>20</b>
3.1 Literal Understanding	4		9
3.2 Inferences and Interpretation	4 - 6		4
3.3 Summary and Generalization	4 - 6		2
3.4 Analysis and Evaluation	4 - 6		5
<b>4.0 Literature</b>	<b>14</b>	<b>28%</b>	<b>14</b>
4.1 Literary Genres	4		5
4.2 Literary Elements	4 - 6		5
4.3 Figurative Language/Sound Devices	4 - 6		4
<b>5.0 Research and Information</b>	<b>8</b>	<b>16%</b>	<b>8</b>
5.1 Accessing Information	4		5
5.2 Interpreting Information	4		3
<b>Total Test</b>	<b>50</b>	<b>100%</b>	<b>50</b>

*(Please note this blueprint does not include items that may be field-tested.)*

- A minimum of 6 items is required to report a standard, and a minimum of 4 items is required to report results for an objective.

# Oklahoma School Testing Program

## Grade 7 Reading – Test Blueprint

### School Year 2014-2015

The blueprint describes the content and structure of an assessment and defines the ideal number of test items and actual number of test items by standard and objective of the Priority Academic Student Skills/ Oklahoma Academic Standards (PASS/OAS).

Standards and Objectives	Ideal Number of Items	Ideal Percentage of Items	Actual Number of Items
<b>1.0 Vocabulary</b>	<b>10</b>	<b>20%</b>	<b>10</b>
1.1 Words in Context	3 - 4		4
1.2 Word Origins	3 - 4		4
1.3 Idioms and Comparisons	3 - 4		2
<b>3.0 Comprehension/Critical Literacy</b>	<b>20</b>	<b>40%</b>	<b>20</b>
3.1 Literal Understanding	4 - 5		4
3.2 Inferences and Interpretation	4 - 6		1
3.3 Summary and Generalization	4 - 6		8
3.4 Analysis and Evaluation	4 - 6		7
<b>4.0 Literature</b>	<b>12</b>	<b>24%</b>	<b>12</b>
4.1 Literary Genres	4		4
4.2 Literary Elements	4		5
4.3 Figurative Language/Sound Devices	4		3
<b>5.0 Research and Information</b>	<b>8</b>	<b>16%</b>	<b>8</b>
5.1 Accessing Information	4		5
5.2 Interpreting Information	4		3
<b>Total Test</b>	<b>50</b>	<b>100%</b>	<b>50</b>

*(Please note this blueprint does not include items that may be field-tested.)*

- A minimum of 6 items is required to report a standard, and a minimum of 4 items is required to report results for an objective.



# Oklahoma School Testing Program Grade 8 Reading – Test Blueprint School Year 2014-2015

The blueprint describes the content and structure of an assessment and defines the ideal number of test items and actual number of test items by standard and objective of the Priority Academic Student Skills/ Oklahoma Academic Standards (PASS/OAS).

Standards and Objectives	Ideal Number of Items	Ideal Percentage of Items	Actual Number of Items
<b>1.0 Vocabulary</b>	<b>6</b>	<b>12%</b>	<b>6</b>
1.1 Words in Context	2		3
1.2 Word Origins	2		1
1.3 Idioms and Comparisons	2		2
<b>3.0 Comprehension/Critical Literacy</b>	<b>21</b>	<b>42%</b>	<b>21</b>
3.1 Literal Understanding	4 - 5		4
3.2 Inferences and Interpretation	4 - 6		6
3.3 Summary and Generalization	5 - 7		5
3.4 Analysis and Evaluation	6 - 8		6
<b>4.0 Literature</b>	<b>15</b>	<b>30%</b>	<b>15</b>
4.1 Literary Genre	4 - 5		4
4.2 Literary Elements	5 - 7		4
4.3 Figurative Language/Sound Devices	4 - 6		7
<b>5.0 Research and Information</b>	<b>8</b>	<b>16%</b>	<b>8</b>
5.1 Accessing Information	4		5
5.2 Interpreting Information	4		3
<b>Total Test</b>	<b>50</b>	<b>100%</b>	<b>50</b>

*(Please note this blueprint does not include items that may be field-tested.)*

- A minimum of 6 items is required to report a standard, and a minimum of 4 items is required to report results for an objective.

# Oklahoma School Testing Program

## Grade 5 Social Studies – Test Blueprint

### School Year 2014-2015

The blueprint describes the content and structure of an assessment and defines the ideal number of test items and actual number of test items by standard and objective of the Oklahoma Academic Standards (OAS).

Standards and Objectives	Ideal Number of Items	Ideal Percentage of Items	Actual Number of Items
<b>1.0 James Towne Settlement and Plimoth Plantation</b>	<b>8</b>	<b>16%</b>	<b>8</b>
1.1, 1.2, 1.3, 1.4 James Towne Settlement	4		4
1.5 Plimoth Plantation	4		4
<b>2.0 Colonial America</b>	<b>10</b>	<b>20%</b>	<b>10</b>
2.1, 2.3, 2.6 Colonial Economics, Trade/Migration, Perspectives	4 - 6		5
2.2, 2.4, 2.5 Self-government, Role of Religion, Leaders, and British and Native American Relationships	4 - 6		5
<b>3.0 American Revolution</b>	<b>18</b>	<b>36%</b>	<b>18</b>
3.1 Causes and Effects of American Revolution	4 - 6		4
3.2, 3.3, 3.4 Founding Documents of the Revolutionary Era	4 - 5		5
3.5 Events of the Revolutionary War	4 - 5		4
3.6 Key Individuals of the Revolutionary Era	4 - 5		5
<b>4.0 Early Federal Period</b>	<b>14</b>	<b>28%</b>	<b>14</b>
4.1, 4.2 Causes, Leaders, and Issues of the Constitutional Convention	4 - 5		4
4.3 Purposes and Principles of the <i>U.S. Constitution</i>	4 - 6		5
4.4, 4.5 Ratification of the <i>U.S. Constitution</i> and the <i>Bill of Rights</i>	4 - 5		5
<b>Total Test</b>	<b>50</b>	<b>100%</b>	<b>50</b>

*(Please note this blueprint does not include items that may be field-tested.)*

- € A minimum of 6 items is required to report a standard, and a minimum of 4 items is required to report results for an objective.

# Oklahoma School Testing Program Grade 7 Geography – Test Blueprint School Year 2014-2015

The blueprint describes the content and structure of an assessment and defines the ideal number of test items and actual number of test items by standard and objective of the Oklahoma Academic Standards (OAS).

Standards and Objectives	Ideal Number of Items	Ideal Percentage of Items	Actual Number of Items
<b>1.0 Geographic Tools/Geography Skills</b>	<b>6</b>	<b>12%</b>	<b>5*</b>
1.1, 1.2, 1.3, 1.4, 1.5 Geographic Tools and Skills	4 - 5		4*
1.6 Freedom Week	1 - 2		1
<b>2.0 Human and Physical Characteristics of Regions</b>	<b>12</b>	<b>24%</b>	<b>12</b>
2.1, 2.2 Political and Physical/Cultural Regions	4 - 6		4
2.3, 2.5 Physical and Human Characteristics Linking/Dividing Regions	4 - 6		4
2.4 Conflict and Cooperation	4 - 6		4
<b>3.0 Physical Systems of the Earth</b>	<b>6</b>	<b>12%</b>	<b>6</b>
3.1 Visual Information, Landforms and Bodies of Water	2 - 4		2
3.2 Impact of Natural Disasters on Human Populations	4 - 5		4
<b>4.0 Human Systems: People and Cultures</b>	<b>16</b>	<b>32%</b>	<b>16</b>
4.1, 4.2, 4.5 Cultural Traits, Major World Religions, and Major Political Systems	6 - 8		6
4.4, 4.6 Economic Systems, Economic Interdependence and Trade	4 - 5		5
4.3, 4.7 Human Characteristics of Developing and Developed Countries and Population Issues	4 - 5		5
<b>5.0 Human Interaction With The Environment</b>	<b>10</b>	<b>20%</b>	<b>10</b>
5.1 Distribution of Resources	4 - 6		4
5.2, 5.3 Human Modification and Regional Problems	4 - 6		6
<b>Total Test</b>	<b>50</b>	<b>100%</b>	<b>49*</b>

*\*One item aligned to 1.2 was suppressed from scoring because it included a map from the Western Hemisphere instead of the Eastern Hemisphere. There were a total of 49 scored operational items on spring 2015 geography test.*

*(Please note this blueprint does not include items that may be field-tested.)*

- € A minimum of 6 items is required to report a standard, and a minimum of 4 items is required to report results for an objective.

# Oklahoma School Testing Program Grade 8 US History – Test Blueprint School Year 2014-2015

The blueprint describes the content and structure of an assessment and defines the ideal number of test items and actual number of test items by standard and objective of the Oklahoma Academic Standards (OAS).

Standards and Objectives	Ideal Number of Items	Ideal Percentage of Items	Actual Number of Items
<b>1.0 Causes and events of the American Revolution</b>	<b>8</b>	<b>16%</b>	<b>8</b>
1.1, 1.2 Consequences of the French & Indian War, British Imperial Policies	4		4
1.3, 1.4, 1.5 Ideological War, <i>Declaration of Independence's</i> Grievances, Ideals, and Social Contract Selection	4		4
<b>2.0 The Revolutionary Era (2.0)</b>	<b>6</b>	<b>12%</b>	<b>6</b>
2.1, 2.2, 2.3 <i>Articles of Confederation</i> , Motivations & Choices, Key Military & Diplomatic Events	6		6
<b>3.0 Developing the American Government System</b>	<b>10</b>	<b>20%</b>	<b>10</b>
3.1, 3.2, 3.3 Causes for the Constitutional Convention, and Ratification	4 - 6		4
3.4, 3.5 Constitutional Principles and the <i>Bill of Rights</i>	4 - 6		6
<b>4.0 The Transformation of the United States to the Mid-1800s</b>	<b>16</b>	<b>32%</b>	<b>16</b>
4.1 Major Events and Issues of Early Presidential Administrations	4 - 6		5
4.2, 4.6 Jacksonian Era and Westward Expansion	4 - 6		6
4.3, 4.4, 4.5 Sectional Economic Systems, African American Experiences, and Reform Movements/Leaders	4 - 6		5
<b>5.0 Causes, Events, and Leadership in the Civil War</b>	<b>10</b>	<b>20%</b>	<b>10</b>
5.1, 5.2 Causes of the Civil War: 1850s through the 1860 Presidential Election	4 - 6		5
5.3, 5.4 Advantages/Disadvantages, Leadership, Major Turning Points of the War	4 - 6		5
<b>Total Test</b>	<b>50</b>	<b>100%</b>	<b>50</b>

(Please note this blueprint does not include items that may be field-tested.)

- € A minimum of 6 items is required to report a standard, and a minimum of 4 items is required to report results for an objective.

**Oklahoma School Testing Program  
Grade 5 Science Test Blueprint  
School Year  
2014-2015**

The blueprint describes the content and structure of an assessment and defines the ideal number of test items and actual number of test items by standard and objective of the Oklahoma Academic Standards (PASS 2011).

Process/Inquiry Standards and Objectives	Ideal Number of Items	Ideal Percentage of Items	Actual Number of Items
<b>P1.0 Observe and Measure</b>	<b>8-10</b>	<b>18-22%</b>	<b>10</b>
1.1 SI (metric) units	4-6		6
1.2 Similar/different characteristics	4		4
<b>P2.0 Classify</b>	<b>8-10</b>	<b>18-22%</b>	<b>10</b>
2.1 Observable properties	5		5
2.2 Serial order	5		5
<b>P3.0 Experiment</b>	<b>13-15</b>	<b>29-33%</b>	<b>13</b>
3.2 Experimental design	9-11		9
3.4 Hazards/practice safety	4		4
<b>P4.0 Interpret and Communicate</b>	<b>12-14</b>	<b>27-31%</b>	<b>12</b>
4.2 Data tables/line/bar/trend and circle graphs	4-6		4
4.3 Prediction based on data	4-6		4
4.4 Explanations based on data	4-6		4
<b>Total Test</b>	<b>45</b>	<b>100%</b>	<b>45</b>

€ A minimum of 6 items is required to report a standard, and a minimum of 4 items is required to report results for an objective.



**Oklahoma School Testing Program  
Grade 5 Science Test Blueprint  
School Years  
2014-2015 & 2015-2016**

<b>Content Standards and Objectives</b>	<b>Ideal Number of Items</b>	<b>Ideal Percentage of Items</b>	<b>Actual Number of Items</b>
<b>C1.0 Properties of Matter and Energy</b>	<b>16-18</b>	<b>39-44%</b>	<b>17</b>
1.1 Matter has physical properties	4-5		4
1.2 Physical properties can be measured	4-5		5
1.3 Energy can be transferred	4-5		4
1.4 Potential/Kinetic Energy	4-5		4
<b>C2.0 Organisms and Environments</b>	<b>10-13</b>	<b>24-32%</b>	<b>12</b>
2.1 Dependence upon community	5-7		7
2.2 Individual organism and species survival	5-7		5
<b>C3.0 Structures of the Earth and the Solar System</b>	<b>12-15</b>	<b>29-37%</b>	<b>12</b>
3.1 Properties of Soils	4-6		4
3.2 Weather patterns	4-6		4
3.3 Earth as a planet	4		4
<b>Total Test</b>	<b>41<sup>1</sup></b>	<b>100%</b>	<b>41</b>

(Please note this blueprint does not include items that may be included for field testing.)

<sup>1</sup> Each test item aligns to both a Process Standard/Objective and a Content Standard/Objective, except for Safety Items which only align to P3.4.



**Oklahoma School Testing Program  
Grade 8 Science Test Blueprint  
School Year  
2014-2015**

The blueprint describes the content and structure of an assessment and defines the ideal number of test items and actual number of test items by standard and objective of the Oklahoma Academic Standards (PASS 2011).

<b>Process/Inquiry Standards and Objectives</b>	<b>Ideal Number of Items</b>	<b>Ideal Percentage of Items</b>	<b>Actual Number of Items</b>
<b>P1.0 Observe and Measure</b>	<b>8-11</b>	<b>18-24%</b>	<b>9</b>
1.1 Qualitative/quantitative observations/changes	4-6		4
1.2 Appropriate tools & 1.3 SI (metric) units	4-5		5
<b>P2.0 Classify</b>	<b>7-9</b>	<b>16-20%</b>	<b>7</b>
2.1 Classification system	4-6		4
2.2 Properties ordered	3-5		3
<b>P3.0 Experiment</b>	<b>15-17</b>	<b>33-38%</b>	<b>16</b>
3.2 Experimental design	6-7		6
3.3 Identify variables	6-7		6
3.6 Hazards/practice safety	3-4		4
<b>P4.0 Interpret and Communicate</b>	<b>12-14</b>	<b>27-31%</b>	<b>13</b>
4.2 Data tables/line/bar/trend and circle graphs	6-7		7
4.3 Explanations/prediction	6-7		6
<b>Total Test</b>	<b>45</b>	<b>100%</b>	<b>45</b>

(Please note this blueprint does not include items that may be included for field testing.)

- € A minimum of 6 items is required to report a standard, and a minimum of 4 items is required to report results for an objective

**Oklahoma School Testing Program  
Grade 8 Science Test Blueprint  
School Years  
2014-2015 & 2015-2016**

Content Standards and Objectives	Ideal Number of Items	Ideal Percentage of Items	Actual Number of Items
<b>C1.0 Properties and Chemical Changes in Matter</b>	<b>8</b>	<b>19%</b>	<b>8</b>
1.1 Chemical reactions	4		4
1.2 Conservation of matter	4		4
<b>C2.0 Motion and Forces</b>	<b>8</b>	<b>19%</b>	<b>8</b>
2.1 Motion of an object	4		4
2.2 Object subjected to a force	4		4
<b>C3.0 Diversity and Adaptations of Organisms</b>	<b>7</b>	<b>17%</b>	<b>7</b>
3.1 Classification	3		3
3.2 Internal and external structures	4		4
<b>C4.0 Structures/Forces of the Earth/Solar System</b>	<b>11</b>	<b>27%</b>	<b>11</b>
4.1 Landforms result from constructive and destructive forces	4		4
4.2 Rock cycle	3-4		4
4.3 Global Weather Patterns	3-4		3
<b>C5.0 Earth's History</b>	<b>7-8</b>	<b>18%</b>	<b>7</b>
5.1 Catastrophic events	3-4		4
5.2 Fossil evidence	3-4		3
<b>Total Test</b>	<b>41-42<sup>1</sup></b>	<b>100%</b>	<b>41</b>

<sup>1</sup> Each test item aligns to both a Process Standard/Objective and a Content Standard/Objective, except for Safety Items which only align to P3.6.



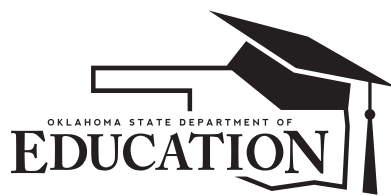
# APPENDIX D—TEST ACCOMMODATIONS





# OKLAHOMA SCHOOL TESTING PROGRAM (OSTP)

ACCOMMODATIONS *for* STUDENTS  
*with an* INDIVIDUALIZED EDUCATION  
PROGRAM (IEP) *or* SECTION 504 PLAN



# **Table of Contents**

<b>DEFINITION AND PURPOSE OF OKLAHOMA STATE TESTING PROGRAM (OSTP)</b>	
<b>ACCOMMODATIONS.....</b>	<b>2</b>
<b>ELIGIBILITY FOR OSTP ACCOMMODATIONS.....</b>	<b>2</b>
Protocol for Emergency Accommodation on State Assessments .....	2
<b>DEFINITION OF STANDARD AND NONSTANDARD OSTP ACCOMMODATIONS .....</b>	<b>2</b>
<b>GENERAL REQUIREMENTS FOR THE USE OF STANDARD AND NONSTANDARD</b>	
<b>ACCOMMODATIONS.....</b>	<b>3</b>
<b>PAPER &amp; PENCIL TEST FORMATS .....</b>	<b>4</b>
<b>OSTP STANDARD ACCOMMODATIONS .....</b>	<b>5</b>
<b>REQUIREMENTS FOR THE USE OF NONSTANDARD ACCOMMODATIONS .....</b>	<b>9</b>
<b>OSTP NONSTANDARD ACCOMMODATIONS .....</b>	<b>10</b>
<b>CALCULATOR REQUIREMENTS.....</b>	<b>11</b>
<b>PROTOCOL FOR HUMAN READERS PROVIDING VERBATIM READ-ALOUD TEST</b>	
<b>ACCOMMODATIONS.....</b>	<b>13</b>
Verbatim Read-Aloud Procedures for Human Reader Accommodators .....	13
Special Guidelines for Reading, Mathematics, and Science Content .....	15
Sign Language Interpreters.....	15
<b>PROCEDURES FOR SCRIBING AND STUDENT RESPONSES .....</b>	<b>16</b>
Scribing Multiple-Choice Questions .....	17
Scribing Constructed/Extended-Response Questions (Writing Tasks) .....	17
Scribing Procedures.....	17
Oklahoma Alternate Assessment Program (OAAP) .....	19
<b>SUPPORTING DOCUMENTS.....</b>	<b>19</b>
OSTP ELA/Reading Test Read-Aloud Protocol.....	19
Form EA (Emergency Accommodation) .....	19
Form U (Unique Accommodation).....	19

## **Definition and Purpose of Oklahoma State Testing Program (OSTP) Accommodations**

A test accommodation is a change in the way a test is administered or in the way a student responds to test questions. Similar to instructional accommodations, test accommodations are intended to offset the effects of a student's disability and to provide him/her with the opportunity to demonstrate knowledge and skills on statewide assessments.

### **Eligibility for OSTP Accommodations**

The right of a student with a disability to receive allowable accommodations on OSTP tests is protected by both federal and state laws. The student's current IEP/504 plan must specify precisely which test accommodation(s) he/she will receive. In cases where an IEP/504 plan is under development, the school personnel responsible for writing the plan must have already met and agreed upon the necessary accommodation(s) before a student may be provided the accommodation(s).

A student who does not have a documented disability or is not served by a current IEP/504 plan is not eligible to receive accommodations on OSTP tests, except for Emergency Accommodation situations. Scribes may be provided for any student (with or without an IEP or Section 504 plan) who has a short-term medical condition that affects his/her physical dexterity which impedes his/her ability to respond to the assessment format.

### **Protocol for Emergency Accommodation on State Assessments**

If prior to or during testing, the school principal (or designee) determines that a student requires an emergency accommodation (e.g., broken hand). [Form EA](#) must be completed and submitted to the District Test Coordinator (DTC) for approval. A copy of this form must be filed in the testing archives and a copy must be retained by the DTC at the central office.

### **Definition of Standard and Nonstandard OSTP Accommodations**

For the purposes of the OSTP, a **standard accommodation** is defined as a change in the routine conditions under which students take OSTP tests that does not alter what the test is intended to measure. Standard accommodations are grouped into the following four categories:

- Setting; for example, administering the test in a small group or a separate setting
- Timing or scheduling of the test; for example, administering the test in short intervals or at a specific time of day
- Presentation; for example, using a large-print or Braille edition of the test
- Response; for example, dictating responses to a scribe

For the purposes of the OSTP, a **nonstandard accommodation** is defined as an accommodation that is needed for the student to access the assessment but not included on the allowable list of accommodations and requires OSDE approval for use on OSTP tests.

## **General Requirements for the Use of Standard and Nonstandard Accommodations**



All accommodations require adherence to test security protocols, including the presence of both a Test Administrator and a Test Proctor during periods requiring access to secure testing materials (e.g., human read-aloud). IEP teams must reconvene annually in order to determine which accommodations will be needed and to document any changes to accommodations. If the IEP/504 team believes that a test accommodation listed in the student’s IEP/504 plan should be removed because it is no longer necessary and appropriate for the student, the team must amend the plan accordingly prior to testing. If a **nonstandard accommodation** will be provided, the student meets all of the eligibility criteria for that accommodation and has been submitted for consideration and received approval from the Oklahoma State Department of Education. The use of accommodations is based on the individual needs of a student with a disability and may only be provided when **ALL** of the following conditions have been met:

1. The student has a disability that is documented in a current IEP/504 plan.
2. The student uses the **accommodation routinely** (with rare exceptions) during classroom instruction and assessment in the subject, both before and after the OSTP test is administered. However, use of a **nonstandard accommodation** during instruction does not necessarily qualify a student to receive the same nonstandard accommodation during OSTP testing; the student must meet additional eligibility requirements to receive a nonstandard accommodation on an OSTP test.
3. The accommodation is documented on the Assessment page of the student’s current IEP/504 Plan.
4. The student requires the accommodation in order to participate in OSTP testing.
5. The accommodation is listed as a current accommodation in this appendix (or, prior to testing, the district or school has consulted with the OSDE and received permission to use a unique accommodation not included in this appendix).

### Accommodations **may not:**

- 1) Alter, explain, simplify, paraphrase, or eliminate any test question, reading passage, writing prompt, or multiple-choice answer option;
- 2) Provide verbal or other clues or suggestions that hint at or give away the correct response to the student;
- 3) Contradict test administration requirements or result in the violation of test security; for example,
  - Test questions may not be modified, reordered, or reformatted in any way for any student;
  - Tests may not be photocopied, enlarged, altered, or duplicated;
  - English-language dictionaries are not allowed for any student on any test.

If the above five conditions have been met and the IEP/504 team determines an accommodation is necessary, then it must be provided to the student during OSTP testing. If an accommodation is provided that does not meet the conditions stated above, the student's test score may be invalidated. If a student refuses an accommodation listed in his/her plan, the accommodation must be offered and remain available to the student during testing. The school may want to document in writing that the student refused the accommodation and keep this documentation on file at the school. Students should never be asked to sign an agreement waiving their right to receive an accommodation. Accommodations used by the student must be indicated on the student's answer booklet and/or personal information profile (online).

Test Formatting Options	Paper Only 	Online Only 
3-5 ELA/Math/Science/Social Studies	X	
6-8 ELA/Math/Geography		X
8 <sup>th</sup> Grade Science/Social Studies	X	
All EOIs		X
Braille Tests	X	
Large Print tests may be provided on paper format for Online Only tests.	*	*

**OSTP Accommodations for Students with an IEP or 504 Plan**

## Paper & Pencil Test Formats

IEP/504 teams are encouraged to provide students with disabilities the same test formats provided to their non-disabled peers based on the test formatting options listed above. IEP/504 teams should base their decision upon individualized, objective evidence to determine whether or not a student is able to access a computer-based test. Students unable to access an OSTP computer-based test must also receive classroom assessments, benchmark assessments, and districtwide assessments in this manner. Consequently, a student on an IEP/504 Plan does not automatically receive paper & pencil test formats. Blanket policies predetermining specific accommodations for students with disabilities are not in accordance with the Individuals with Disabilities Education Act (IDEA) and Section 504 of the Rehabilitation Act of 1973.

# OSTP Standard Accommodations

I. Setting/Timing/Schedule	Procedures & Guidance
S1. Individual testing	This accommodation is required for many presentation or response accommodations. This accommodation is intended to reduce student distractions. Students must be actively monitored and may use a testing carrel or test in a special education resource room or other location that maintains test security.
S2. Small group (5 or fewer) testing	This accommodation is required for many presentation or response accommodations. This accommodation is intended to reduce student distractions. Students must be actively monitored and may use a testing carrel or test in a special education resource room or other location that maintains test security.
S3. Preferential seating	Students may need to sit close to the front of the room so they can see or hear more easily, increase physical access, or have access to special equipment.
S4. Separate location	This accommodation is intended to reduce student distractions. Students may use a testing carrel, test in a special education resource room, or other location that maintains test security. <b>(S1 &amp; S2)</b> student limits do not apply for this accommodation.
S5. Provide special lighting	Specify type (e.g., 75 Watt incandescent, light box, etc.)
S6. Provide adaptive or special furniture	Students may need accommodations to provide better access (e.g., slant board, stander, etc.)
T1. Flexible schedule same day  <b>Student test book(s) must be secured between sessions.</b>	Students are scheduled to allow for the best conditions/timing for their performance, and/or may be allowed to take the test during more than one sitting during a single day. Students are not allowed to study for or discuss tests between sessions. This is not intended for lunch or recess breaks. <b>(S4)</b> must be selected for this accommodation.
T2. Administer subject area test over several sessions (except Writing tests or extended response sections).  <b>Student test books must be secured between sessions.</b>	The test may be separated into smaller sections and administered over several days within the state testing window. Student may only work in one separated section at a time and may not go to previous sections or work ahead. <b>(S4)</b> must be selected for this accommodation.
T3. Allow frequent breaks during testing <b>(maximum 20 minutes)</b>  <b>Student test book(s) must be secured during the break(s).</b>	Students are allowed to take short breaks as requested or at predetermined intervals. Students must be monitored during breaks and may not study for or discuss the test during these breaks or view/change previously answered questions after a break. This is not intended for lunch or recess breaks. <b>(S4)</b> must be selected for this accommodation.

**OSTP Accommodations for Students with an IEP or 504 Plan**



II. Presentation	Procedures & Guidance
<p>P1. Alternate Formats</p> <ul style="list-style-type: none"> <li>a. Large-Print Version (Instructions provided within kits.)</li> <li>b. Contracted Braille Version (Instructions provided within kits.)</li> <li>c. Large-print through Online Testing Client</li> </ul>	<p>The Test Administrator must transcribe student answers verbatim into the standard answer document/test book that was provided in the large-print (paper/pencil) or Braille kit.</p> <p>Braille test formats will be provided on paper using contracted Braille and Nemeth code for numbers and formulas.</p> <p>Large print formats may be configured in the online testing client for certain assessments.</p>
<p>P2. Reverse Color Contrast</p>	<p>Students who have a visual impairment may require this to access the computer screen. This accommodation option must be selected in the online testing client student profile.</p>
<p>P3. Use of assistive technology (AT) devices or supports: e.g., color overlays, magnifier, pencil grips, auditory amplification devices, noise buffers, slant board, wedge for positioning.</p>	<p>The specific device or support should be specified in the IEP/504 Plan, be routinely used by the student, and not alter the construct being measured.</p> <p><b>(S1, S2, or S4)</b> may be appropriate for this accommodation as some AT devices may be distracting to other students.</p>
<p>P4. Text-to-Speech, Human Reader, or Sign Language Interpretation (<b>excludes ELA/Reading tests</b>)</p> <ul style="list-style-type: none"> <li>a. Text-to-Speech is built into the online testing client, requires the use of ear phones, and may be administered individually, small groups, or regular setting.</li> <li>b. Human Reader reads test directions, test items, and answer choices from separate test booklet and must log the test booklet serial number on the Nondisclosure agreement (NDA). This is limited to small group or individualized testing.</li> <li>c. Sign Language Interpretation may be accomplished by using a separate test booklet in a separate location.</li> </ul> <p><a href="#">Please refer to the Human Reader directions on pages 13-14.</a></p>	<p><b>Grades 3-8 &amp; EOI Math, Grades 5, 8, &amp; EOI Science, Grades 5, 7, 8, &amp; EOI Social Studies, and Grades 5/8 Writing tests are the only subjects included in this accommodation.</b></p> <p><u>Paper Only tests</u> are read by a Human Reader. Test Administrator uses separate test booklet and must log the test booklet serial number on the Nondisclosure agreement (NDA). Small group testing (<b>S2</b>) is required and test forms must be the same.</p> <p><u>Online Only tests</u> have built in Text-to-Speech functionality. This is the preferred method for providing read aloud to students (<b>S2</b> is not required, but ear phones are required). However, if a human reader is required for the student, then the test must be read from the computer screen verbatim. (<b>S1 or S2</b>) is required when utilizing a Human Reader.</p> <p><b>Students may request items be read more than once.</b></p>
<p>P5. Use of Secure Braille Note-taker (students with a visual impairment)</p>	<p>An electronic note-taker, which may have a Braille or QWERTY-type keyboard, is an adaptive device similar to a PDA. This device may have built-in speech output and/or a refreshable Braille display.</p> <p><b>(S1 or S2)</b> must be selected for this accommodation.</p>

**OSTP Accommodations for Students with an IEP or 504 Plan**

P6. Simplification/repetition/signage of directions	Student may ask for clarification, simplification, signage of directions. This does not include test questions or answer choices. Students may have directions reread for each page of questions.
P7. Turn off Universal Tools/Accessibility Features	Disable any tools that may be distracting to a student, or that a student does not need to use, or the student may be unable to use.
P8. Use of an Abacus.	Students who have a visual impairment/blindness or access mathematical calculations tactilely may use an abacus.
P9. Use a calculator on Grades 3–8 Mathematics & 5 <sup>th</sup> Grade Science.  <a href="#">See Calculator Requirements on pages 11-12</a>	A four-function calculator may be used. Calculators with Computer Algebra Systems are prohibited.
P10. Provide cues (arrows, stop signs) on answer form	This applies to Paper Only tests. Cues may not clue a student to a correct or incorrect answer.
P11. Use masking or templates to reduce the amount of visible print.	Masking involves blocking off content that is distracting to the student. Students are able to focus their attention on a specific part of a test item by masking. This feature is built into the online testing client.
P12. Secure paper to work area with tape or magnets.	This applies to Paper Only tests. Please be cautious when adhering tape to the test booklet or answer document by avoiding the tracking marks (black bars) for the scoring process.
P13. Student may read the test aloud or sign the test to himself or herself.	This requires individual testing and non-disclosure forms signed by Test Administrator/Test Proctor.  <b>(S1)</b> must be selected for this accommodation.
P14. Placeholders, templates, or markers to maintain place	This applies to Paper Only tests.
P15. Audio Calculator	This requires ear phones for group testing. A non-embedded calculator for students needing a special calculator, such as a Braille calculator or a talking calculator, is currently unavailable within the online assessment platform. <b>(S1, S2, or S4)</b> may be appropriate for this accommodation.
P16. Paper & Pencil Test  <a href="#">Please see Paper &amp; Pencil Test Format guidelines on page 4.</a>	Students unable to access computer-based tests in both classroom assessments and OSTP assessments may receive a paper & pencil format.

**OSTP Accommodations for Students with an IEP or 504 Plan**

III. Response	Procedures & Guidance
R1. Student marks answers in test book and not on an answer document, for later transfer by a Test Administrator to an answer document.	The Test Administrator with the Test Proctor present must transcribe answers verbatim into the standard answer document. <b>Does not apply for Grade 3 tests.</b> This accommodation applies to Paper Only tests.
R2. Scribe Reading/ELA, Mathematics, Science, Social Studies, or Writing tests: <ol style="list-style-type: none"> <li>a. Student dictates response to a scribe who records responses on an answer document or through the Online Testing Client by Test Administrator/Proctor.</li> <li>b. Student signs response to a scribe who records responses on an answer document or through the Online Testing Client by Test Administrator/Proctor.</li> </ol> <p><a href="#">Please see Scribe Instructions and Guidelines on pages 16-19.</a></p>	A scribe is a Test Administrator/Proctor who writes down or enters into a secure online testing client what a student has dictated using one or more of the following modes: an assistive technology communication device, pointing, and/or communication by the student via Sign Language Interpretation. <p>Students who have documented significant motor or processing difficulties that make it difficult to produce responses may need to dictate their responses to a human, who then records the students' responses verbatim. The use of this support may result in the student needing additional overall time to complete the assessment.</p> <p><b>The guiding principle in scribing is to assist the student in accessing the test and responding to it. (S1) must be selected for this accommodation.</b></p>
R3. Use computer or other assistive technology device to respond. <ol style="list-style-type: none"> <li>a. Student utilizes word processor, computer, or electronic keyboard without the “help” features, such as spell check, an electronic dictionary, a thesaurus, or access to the Internet.</li> <li>b. Student tapes or records response for a writing portion of the test for verbatim transcription by Test Administrator/Proctor.</li> </ol> <p><a href="#">Please see Scribe Instructions and Guidelines on pages 16-19.</a></p>	Students may use a computer, typewriter, or other assistive technology device to respond. This may include software dictation or dictation devices the student uses during routine instruction. <p>Extended written responses must be printed off for transcription. Return the original typed student response for secure materials submission. The Test Administrator must transcribe words verbatim into an answer document/test book or Online Testing Client.</p> <p>The electronic responses or recordings must be destroyed or erased by District Test Coordinator. <b>(S1) must be selected for this accommodation.</b></p>
R4. Test Administrator monitors placement of student responses on the answer document or the online testing client.	Test Administrator may redirect students. Students may not be directed to correct or incorrect answers in any way.
R5. Braille/Secure, Braille Note-taker/Abacus (students with a visual impairment)	The Test Administrator must transcribe answers verbatim into the standard answer document/test book that was provided in the large-print (paper/pencil) or Braille kit. <p><b>(S1, S2, or S4) must be selected for this accommodation.</b></p>

**OSTP Accommodations for Students with an IEP or 504 Plan**

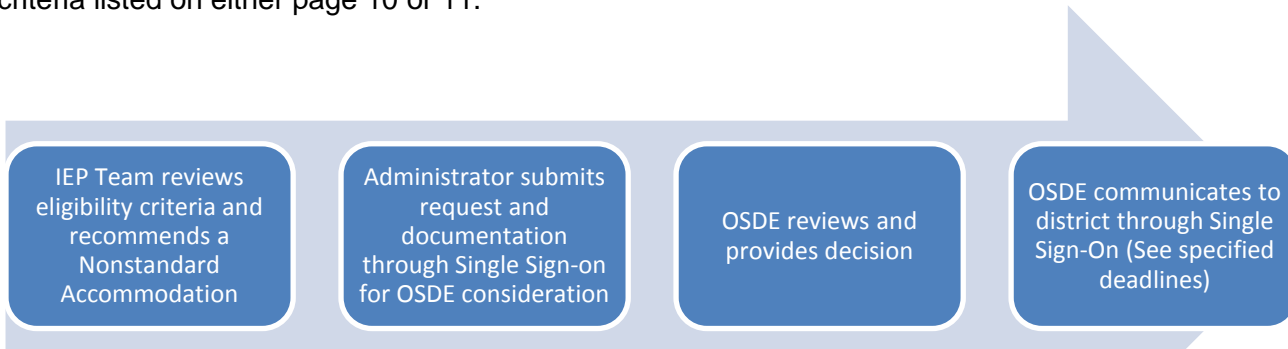
## Requirements for the Use of Nonstandard Accommodations

IEP and 504 teams may request the use of one or more of the following OSTP nonstandard accommodations (ELA/Reading Read-Aloud or Unique Accommodation) only when all of the criteria are met, as described on either page 10 or 11. The decision to use a nonstandard accommodation is recommended by the IEP/504 team based on the nonstandard accommodation eligibility criteria. Nonstandard accommodations for use on OSTP tests must be approved by the OSDE. The nonstandard accommodation can only be provided to a student with a disability on an OSTP test when it is documented on the Assessment page in a current IEP or listed in the student's 504 plan specifically as an OSTP accommodation. Once OSDE approves the accommodation, this documentation may be addressed through an IEP meeting or an IEP amendment. Use of a nonstandard accommodation during instruction does not necessarily qualify a student to receive the same nonstandard accommodation on an OSTP test.

The **ELA/Reading Read-Aloud accommodation (NS1)** request may only be submitted when all three prongs of the eligibility requirements are met as described on page 10. The [OSTP ELA/Reading Read-Aloud Protocol](#) will be used by the IEP/504 team to document all three prongs, including submission of any documents or evaluations to the OSDE. The information from this protocol must be submitted through the Nonstandard Accommodation Tool located on the Single Sign-on Website for consideration by the OSDE.

A **Unique Accommodation (NS 2)** is an accommodation that requires changes or alterations to the test materials/booklet or media presentation. The unique accommodation must be one that is regularly used by the student for classroom instruction, must be on the student's IEP, and must not alter the underlying content of the assessment. The unique accommodation request must be submitted through the Nonstandard Accommodation Tool located on the Single Sign-on Website for consideration by the OSDE. Please refer to page 11 & [Form U](#), Unique Accommodation (NS2), for specific requirements.

IEP and 504 teams are encouraged to make consistent, defensible, and appropriate decisions for each student, and to amend the IEPs and 504 plans of students who do not meet the nonstandard accommodation eligibility criteria. The OSDE will continue to review the number of students with disabilities who receive nonstandard accommodations in each district. Nonstandard accommodation requests must be approved by the OSDE before a student may use the accommodation on a state test. The use of a nonstandard accommodation on the OSTP without OSDE approval may result in a testing invalidation. Please do not submit a request if the student does not meet the specific eligibility criteria listed on either page 10 or 11.



**OSTP Accommodations for Students with an IEP or 504 Plan**

# OSTP Nonstandard Accommodations

IV. ELA Read-Aloud*	Eligibility Requirements
<p><b>NS1. Text-to-Speech, Human Reader, or Sign Language Interpretation Accommodations for the English Language Arts/Reading Assessments.</b></p> <ol style="list-style-type: none"> <li>Text-to-Speech is built into the testing client and requires the use of ear phones and may be administered individually or small group (preferred method).</li> <li>Human Reader reads test directions, test items, and answer choices from separate test booklet and must log the test booklet serial number on the Nondisclosure agreement (NDA). This is limited to small group or individualized testing</li> <li>Sign Language Interpretation may be accomplished by using a separate test booklet.</li> </ol> <p>Test directions, test items, and answer choices may be read verbatim. Refer to test formatting options. Students may request items be read more than once.</p> <p><b><u>EOI Opt. Retest/Winter/Trimester</u></b> Requests must be submitted to the OSDE by November 1<sup>st</sup> for the EOI Retest/ Winter/ Trimester window and responses will be provided on a case-by-case basis no later than November 14<sup>th</sup>.</p> <p><b><u>EOI Opt. Retest/Spring/Summer</u></b> Request must be submitted to the OSDE by March 1<sup>st</sup> for the Spring/Summer testing window and responses will be provided on a case-by-case basis no later than March 21<sup>st</sup>.</p> <p><b>*Score reports for students receiving a read-aloud on an ELA/Reading test will indicate the student received this nonstandard accommodation.</b></p>	<p>This accommodation must be determined by the following 3-pronged approach:</p> <ol style="list-style-type: none"> <li>The student has a specific disability that severely limits or prevents him/her from decoding printed text at any level of difficulty, even after varied and repeated attempts to teach the student to do so (i.e., the student is a non-reader, not simply reading below grade level); <b><u>and</u></b></li> <li>The student can only access printed materials through a screen reader (assistive technology) or human reader, and/or is provided with spoken text on audiotape, CD, video, or other electronic format during routine instruction (includes Sign Language Interpretation), except while the student is actually being taught to decode; <b><u>and</u></b></li> <li>The IEP/504 team will utilize and provide the required documentation from the <a href="#">OSTP ELA/Reading Test Read-Aloud Protocol</a>, which includes the use of <a href="#">the Protocol for Accommodations in Reading (PAR)</a> or the <a href="#">AIM Navigator</a> for deaf or blind students. This documentation must be uploaded into the Nonstandard Accommodation Single Sign-on Application for consideration by the OSDE.</li> </ol> <p><b>Paper Only tests</b> are read by a Human Reader. <b>(S1 or S2)</b> is required and test forms must be the same.</p> <p><b>Online Only tests</b> have built in Text-to-Speech functionality. This is the preferred method for providing read aloud to students. However, if a human reader is required for the student, then the test must be read from the computer screen verbatim. <b>(S1, S2, or S4)</b> is required.</p> <p><b>The request will be submitted annually through the Nonstandard Accommodation Tool Single Sign-on application.</b></p>

**OSTP Accommodations for Students with an IEP or 504 Plan**

**NS2. Unique Accommodations**

Students with disabilities who have IEPs/504 plans are eligible for consideration for unique accommodations on state assessments (e.g., allow projection of test for students receiving the Sign Language Interpretation accommodation in small groups, manipulatives, etc.).

A unique accommodation is an accommodation that requires changes or alterations to the test materials/ booklet or media presentation.

The unique accommodation must be one that is regularly used by the student for classroom instruction, must be on the student’s IEP, and must not alter the underlying content of the assessment.

A request may be made (pursuant to the IEP/504 team’s determination) for a unique accommodation utilizing **Form U** for a student with a disability on any specified subject area(s) of the OSTP.

The **Form U** must be submitted:

- Due to the student’s need for an accommodation that would enable the student to access the state assessment.
- Through the Nonstandard Accommodation Tool Single Sign-on Application.
- With completed student information and any other requested information.

**The requested accommodation must not impact the reliability or validity of the test and the request may not exempt a student from taking any portion of the OSTP test(s).**

## Calculator Requirements

The items on the Grade 8 Science, Algebra I, Geometry, Algebra II, and Biology I assessments are designed so that calculators are not required to solve any of the problems. However, certain tasks are more difficult if a calculator is not available.

Before the first day of the test, students using a calculator for any Grade 8 Science, Algebra I, Geometry, Algebra II, or Biology I assessment should be familiar with the use of the specific calculator that will be utilized. Students must be instructed in the use of calculators; otherwise it may hinder students’ performance on the assessment.

**Subject-Specific Requirements**

- Grades 3-8 Math:
  - Calculators are only allowed as an approved accommodation for students on an IEP/ 504 Plan and only a basic four-function calculator with square root and percent may be used.
- Grade 8 Science, Biology I, Algebra I and Geometry *{All Students}*:
  - Scientific Calculators meeting general requirements may be used on all sections.
- Algebra II *{All Students}*:
  - Graphing Calculators meeting general requirements may be used on all sections.

## **General Requirements**

- Calculators are permitted but are not required.
- Calculator capabilities described for a specific subject give the maximum capabilities allowed; calculators with less capability are acceptable.
- Students may not share calculators.
- Students may use their own calculators or those provided by the school.
- Calculators that make noise must have the sound feature turned off.
- Calculators that have paper tape must have the tape removed.
- All calculators must have the memory cleared before and after the test session.
- Any programs or applications must be removed prior to the test session.

## **Prohibited Calculators**

- Pocket organizers
- Handheld or laptop computers
- Electronic writing pads or pen-input devices
- Calculators built into cellular phones, smart watches, tablets or other electronic communication devices
- Calculators with a typewriter keypad (QWERTY format)
- Calculators with programs or applications that cannot be removed or disabled (e.g., Polynomial Root-Finder and Simultaneous Equation Solver on TI-86)
- Calculators with built-in computer algebra systems (CAS), such as, but not limited to:
  - Casio: Algebra fx 2.0, ClassPad 300, and all model numbers that begin with CFX-9970G
  - Texas Instruments: All model numbers that begin with TI-89 or TI-92, TI-Nspire CAS
  - Hewlett-Packard: HP-48GII and all model numbers that begin with HP-40G or HP-49G

## **Test Security and Validity**

Using a calculator that does not meet the above requirements invalidates the test results and is a violation of test security and test validity. Any violation will be reported to the State Superintendent and may result in revocation of teaching and/or administrative certificates.

# Protocol for Human Readers Providing Verbatim Read-Aloud Test Accommodations

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A Test Administrator (human reader) who provides the verbatim reading accommodation to a student must comply with the following procedures when working with a student in a testing situation:

- Human Reader: A state certified educator who reads orally to a student.
- All Human Readers must receive Test Administrator training by the local district and the district must retain documentation, which may be requested by the OSDE at any time.
- A test proctor is required. Small group (no more than 5 students) or individual testing required.
- Human Readers must sign the Test Administrator Test Security Form and a Non-Disclosure agreement form (NDA).
- Human Readers must read from the computer screen for online test formats or from a separate test booklet for paper/pencil formats (log test booklet serial number on NDA)
- Students without the verbatim read-aloud accommodation should not be tested in the same location as students with the verbatim read-aloud accommodation.
- If students are taking the paper test, the students grouped together must have the **same paper test form**.

## Verbatim Read-Aloud Procedures for Human Reader Accommodators

To ensure uniformity in presentation of standardized tests in Oklahoma, **built-in Text-to-Speech software on the secure online testing client** should be used whenever possible. Human readers must follow the procedures outlined below:

1. Human readers must read, verbatim (word-for-word), only the words in the test book or on the computer screen, without changing or adding words, or otherwise assisting the test-taker in any way to influence the test taker's selection of a response.
2. Human readers must speak in a clear and consistent voice throughout the test administration, using correct pronunciation. Readers should be provided a copy of the test and the examiner's directions, no more than one day prior to the start of testing, to become familiar with the content being tested in order to correctly read words, terms, symbols, signs or graphics that are part of the test. The test must remain in a secure location on school premises.
3. Human readers may not clarify, elaborate, or provide assistance to students.
4. Human readers must give special emphasis only to words printed in boldface, italics, or capitals and tell the test-taker that the words are printed in that way. No other emphasis or special vocal inflection is permissible. Readers should use even inflection so that the student does not receive any cues by the way the information is read.

**OSTP Accommodations for  
Students with an IEP or 504 Plan**



5. Human readers must be patient and understand that the test-taker may need to have test items repeated several times.
6. Human readers must not attempt to solve problems or determine the correct answer to an item while reading as this may result in an unconscious pause or change in inflection which could be misleading to the test-taker.
7. Human readers must maintain a neutral facial expression and must not smile or frown which may be interpreted by the test-taker as approval or disapproval of the student's answers.
8. Human readers must recognize that test-takers who are blind or who have low vision may also have additional special tools or equipment (e.g., abacus, braille, slate, stylus) that have been approved for use during the test.
9. Human readers must be familiar with the student's IEP/504 Plan and know in advance the exact type of verbatim reading accommodation required by the student. The test-taker may require all or portions of the test to be read aloud, depending on his or her particular set of accommodations.
10. If a human reader finds an unfamiliar word or one that he or she is not sure how to pronounce, advise the test-taker of the uncertainty about the word and spell the word.
11. When reading a word that is pronounced like another word with a different spelling, if there is any doubt about which word is intended, readers must spell the word after pronouncing it.
12. Human readers must spell any words requested by the test-taker.
13. When reading passages, readers must be alert to all punctuation marks. Human readers may read the passage through once so that the test-taker can grasp the content of the passage. Some test-takers may ask for the passage to be read through a second time with punctuation marks indicated. When required or asked to read with punctuation, specific lines within a passage indicate all punctuation found within those lines.
14. When test items refer to particular lines of a passage, reread the lines before reading the question and answer choices. For example, a human reader might say, "Question X refers to the following lines..." Reading the lines referred to would then be followed by reading question X and its response options.
15. When reading selected response items, readers must be particularly careful to give equal stress to each response option and to read all of them before waiting for a response. The test-taker will record the answer or provide the answer to the test scribe, who will record it for the test-taker.
16. If a human reader is also serving as a scribe, and if the test-taker designates a response choice by letter only ("D", for example), the human reader must ask the test-taker if he/she would like the complete response be reread before the answer is recorded.

17. If the test-taker chooses an answer before the reader has read all the answer choices, the human reader must ask if the test-taker wants the other response options to be read.
18. After a human reader finishes reading a test item, the human reader must allow the test-taker to pause before responding. However, if the test-taker pauses for a considerable time following the reading of the answer choices, say: "Do you want me to read the question again...or any part of it?" In rereading questions, readers must be careful to avoid any special emphasis on words not emphasized in the printed copy by italics or capital letters.

## **Special Guidelines for Reading, Mathematics, and Science Content**

Mathematical expressions and science vocabulary must be read precisely and carefully to avoid misrepresentation. For mathematics items involving algebraic expressions or other mathematical notation, it may be preferable for the reader to silently read the entire question before reading it aloud to the test-taker. Use technically correct yet simple terms, and be consistent in the treatment of similar expressions.

## **Sign Language Interpreters**

Test-takers who are deaf or hard of hearing may require the services of an interpreter. The interpreter typically provides support to the student in understanding test instructions that would normally be read aloud to all students.

1. Discussions with the interpreter on testing procedures should be conducted with the test-taker present before (and not during) the test session.
2. Before the session, the interpreter must become familiar with the test instructions and the terminology used in the test that he or she will be interpreting.
3. An interpreter always lags a few words or phrases behind the person who is speaking. Allow short pauses for the test-taker to respond or to ask questions.
4. As the test administrator, remember to speak directly to the test-taker even when an interpreter is present.
5. Courtesy requires that test examiners not say things to the interpreter that they do not want repeated to the test taker. (For example, do not ask the interpreter's opinion about the test taker or the situation.)
6. An interpreter may also provide a verbatim read-aloud accommodation for students who require this accommodation, as listed in the student's IEP/504 plan.

# Procedures for Scribing and Student Responses

## Overview

A scribe is a Test Administrator/Proctor who writes down what a student dictates by speech, or through an assistive technology communication device. The guiding principle in scribing is to assist the student in accessing the test and responding to it. **Alterations or changes to an OSTP tests are not allowed and will result in test invalidation.** Any variation in the assessment environment or process that fundamentally alters what the test measures or affects the comparability of scores is considered a modification.

A scribe must be currently employed educator/paraprofessional, must be familiar with scribing, and must have been trained as a Test Administrator/Proctor, and must have on file a signed Non-Disclosure Form for Test Administrators/Proctors (See Test Preparation Manual). Individuals who serve as scribes need to be carefully prepared to ensure that they know the vocabulary involved and understand the boundaries of the assistance to be provided.

Scribes must be impartial and experienced in transcription. It is preferable for the scribe to be a familiar person, such as the teacher who is typically responsible for scribing during regular instruction. Scribes will review the test security procedures and will sign all statements required of Test Administrators/Proctors.

Scribes must fulfill the following duties:

- Sign a test security form acknowledging that they will ensure that the content of the written responses directly represents the independent work of the student.
- Sign a Nondisclosure form.
- List the names and enrollment grades of the students whose responses were transcribed and send the form to the building test coordinator upon completion.
- Demonstrate proficiency in signing (ASL and/or signed English) if serving as both the interpreter and scribe.
- Test in a location where other examinees are not able to hear or see other students' responses.
- Remain silent while students are dictating or signing.
- Ask students to repeat a word or phrase for understanding when needed.
- Indicate when he/she was unable to understand the student's oral or signed response.
- Record the interpreter's response.

Produce legible text so that the written portion of the test can be scored.

- When transcribing from a handwritten or word-processed response, record punctuation, capitalization, and spelling as provided by the student.

Refrain from

- Communicating verbally or nonverbally whether the response is correct or incorrect
- Prompting the student in any way that would result in a better response or essay
- Influencing the student's response in any way
- Editing student work or completing a student's incomplete essay
- Discussing the student's essay with the student or any other person

**OSTP Accommodations for  
Students with an IEP or 504 Plan**

## **Scribing Multiple-Choice Questions**

The scribe should confirm the student's response before recording the student's answer on the score sheet or entering the student's response into the secure online testing client. If the scribe cannot understand a student's pattern of speech, or it is barely audible, large cards, each indicating one of the response options (e.g., A-D), can be used. The student can then choose the card that indicates the student's desired response to the multiple-choice question.

## **Scribing Constructed/Extended-Response Questions (Writing Tasks)**

The scribe should determine the preferred mode of recording the student's response *before* the date of the test. At testing time, the student may then dictate the constructed/extended response directly to a scribe. A student with disabilities must be given the same opportunity as other students to plan, draft, and revise the constructed/extended response. The scribe's responsibility is to be both accurate and fair, neither diminishing the fluency of the student's response nor helping to improve or alter what the student asks to be recorded. This means that the scribe may write an outline or other plan as directed by the student. For Online Only tests, transcribing involves the transfer of a student's written response into the secure testing client.

The student does not have to specify repeatedly spelling and language conventions once the student has demonstrated knowledge and skills in the use of these spelling and language conventions. The scribe may apply these conventions automatically. Examples include the following:

- Once a student has demonstrated the knowledge of indicating the beginning of sentences with a capital letter, the student does not need to specify this throughout the remainder of the constructed/extended response. That is, scribes can automatically capitalize the first letter in the beginning of a sentence if the student has indicated punctuation ending the previous sentence. If the student has not indicated punctuation ending the previous sentence and says, "The dog ran. The dog jumped," the scribe would write "the dog ran the dog jumped".
- Homonyms and often-confused words such as "to," "two," and "too," or "there," "their," and "they're," or "than" and "then" should be spelled by the student each time they are used.

## **Scribing Procedures**

To maintain the student's fluency of thought and to allow the student to demonstrate the requisite knowledge and skill in English-language arts conventions, the scribe should adhere to the following process:

1. The student dictates the response without interruption directly to the scribe or electronic recording device.
  - a. Students may punctuate as they dictate. For example, when stating the sentence "The cat ran.", the student may say, "The cat ran period."
  - b. Students may dictate more than one sentence at a time and add punctuation after the fact, when given the scribed sentences to proofread.

- c. The scribe transcribes a draft of the student’s response exactly as dictated without including any conventions other than spelling. Probing or clarifying questions are not allowed except in the case of classifiers for students using ASL. Scribes may not question or correct student choices. Scribes may draw a diagram or a picture described by the student if the student is unable to draw the diagram or picture. The student may not yet view this written transcription.
2. The scribe reads the draft to the student without vocal inflection that would indicate punctuation or alert the student to possible mistakes.
3. The student then provides letter-by-letter spelling for each word in the response that the scribe has determined must be spelled by the student. The scribe edits the draft of the constructed/extended response as spelled by the student.
4. The student views the draft and/or listens to the scribe as the scribe reads the draft of the constructed/extended response (i.e., written transcription). Students **MUST** be given the opportunity to review their responses in the way that the student prefers:
  - a. Scribes may read back the dictation for proofreading to the student; or
  - b. Students may review the written or typed response on paper or on the computer screen after having indicated word-for-word spelling according to these guidelines.
5. The student indicates additional edits to the scribe, including but not limited to paragraph structure, capitalization (for proper nouns, acronyms, and so forth), wording, spelling, or punctuation. The scribe will make those changes exactly as dictated by student, even if incorrect.
6. The scribe records the final written response. Scribes may handwrite (there is no penalty for cross-outs and insertions), type, or use a laptop to record the student’s work. If the scribe types and prints out the student’s responses, the responses need to be transcribed into the response booklet for paper based tests or typed directly into the secure testing client for online tests. The transcriber must copy the student’s marks or responses exactly as he/she has written—including all errors in grammar, mechanics, spelling, etc.

If necessary, proofread the student essay with another scribe before word processing the student response.

- ✓ If the student is using a tape recorder or videotape for later transcription by a scribe, it is advisable to have two people listen or view as a reliability check for accuracy.
- ✓ For an accuracy check, scribes may record the session on audio or videotape for play back.
- ✓ Corrections of exclusively Braille errors will be at the discretion of the Scribe. Braille errors are those errors that occur specifically to that population due to recording medium. An example could be the result of the physical typing on a Braille machine, such as typing an ‘f’ as opposed to the intended ‘d’ due to finger misplacement. The transcriber has the option to verify student response with another examiner trained in Braille.
- ✓ To increase accuracy, it is advisable to have one person reading the student’s responses, as another transcribes them to the test booklet. The persons then switch roles to check

the transcription. Transcriptions must take place in a secure environment and, whenever possible, under the direction of the building test coordinator. Please note that all test material—including the test booklet the student originally used—must be returned to the testing vendor.

- ✓ Collect scratch paper, rough drafts, and login information immediately at the end of the testing session. These items are considered secure material and must be collected and shredded by the building testing coordinator at the end of the testing session.

### **Oklahoma Alternate Assessment Program (OAAP)**

Oklahoma has developed the Oklahoma Alternate Assessment Program (OAAP) in order to broaden the inclusion of children with disabilities in the state assessment program. The Criteria Checklist is intended to assist IEP teams in determining whether a student should participate in the regular assessment, with or without accommodations, or in an alternate assessment and to address documentation requirements under IDEA. For additional information on the OAAP, visit <http://ok.gov/sde/assessment> or contact the Special Education Office at (405) 521-3351.

## **Supporting Documents**

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[OSTP ELA/Reading Test Read-Aloud Protocol](#)

[Form EA \(Emergency Accommodation\)](#)

[Form U \(Unique Accommodation\)](#)

**OSTP Accommodations for  
Students with an IEP or 504 Plan**

# APPENDIX E—PARTICIPATION RATES





**Table E-1. 2014–15 OCCT: Summary of Participation by Demographic Category—Mathematics**

<i>Description</i>	<i>Tested</i>	
	<i>Number</i>	<i>Percent</i>
All Students	278,439	100.00
Female	136,261	48.94
Male	142,174	51.06
Hispanic or Latino	44,857	16.11
American Indian/Alaskan Native	42,105	15.12
Asian	4,939	1.77
Black/African American	25,457	9.14
Pacific Islander	859	0.31
White/Caucasian	138,995	49.92
Two or More Races	21,227	7.62
Economically Disadvantaged	173,636	62.36
Individual Education Program (IEP)	47,690	17.13
Plan 504	3,910	1.40
English Language Learners (ELL)	18,344	6.59

**Table E-2. 2014–15 OCCT: Summary of Participation by Demographic Category—Reading**

<i>Description</i>	<i>Tested</i>	
	<i>Number</i>	<i>Percent</i>
All Students	288,759	100.00
Female	141,499	49.00
Male	147,254	51.00
Hispanic or Latino	45,455	15.74
American Indian/Alaskan Native	43,295	14.99
Asian	5,440	1.88
Black/African American	25,998	9.00
Pacific Islander	867	0.30
White/Caucasian	145,801	50.49
Two or More Races	21,903	7.59
Economically Disadvantaged	176,418	61.10
Individual Education Program (IEP)	47,802	16.55
Plan 504	4,031	1.40
English Language Learners (ELL)	17,617	6.10

**Table E-3. 2014–15 OCCT: Summary of Participation by Demographic Category—Science**

<i>Description</i>	<i>Tested</i>	
	<i>Number</i>	<i>Percent</i>
All Students	95,827	100.00
Female	46,756	48.79
Male	49,066	51.20
Hispanic or Latino	14,827	15.47
American Indian/Alaskan Native	14,708	15.35

continued

<i>Description</i>	<i>Tested</i>	
	<i>Number</i>	<i>Percent</i>
Asian	1,952	2.04
Black/African American	8,526	8.90
Pacific Islander	260	0.27
White/Caucasian	48,585	50.70
Two or More Races	6,969	7.27
Economically Disadvantaged	57,220	59.71
Individual Education Program (IEP)	15,801	16.49
Plan 504	1,336	1.39
English Language Learners (ELL)	4,775	4.98

**Table E-4. 2014–15 OCCT: Summary of Participation by Demographic Category—Social Studies**

<i>Description</i>	<i>Tested</i>	
	<i>Number</i>	<i>Percent</i>
All Students	143,364	100.00
Female	70,145	48.93
Male	73,218	51.07
Hispanic or Latino	22,095	15.41
American Indian/Alaskan Native	22,081	15.40
Asian	2,871	2.00
Black/African American	12,906	9.00
Pacific Islander	394	0.27
White/Caucasian	72,636	50.67
Two or More Races	10,381	7.24
Economically Disadvantaged	85,646	59.74
Individual Education Program (IEP)	23,477	16.38
Plan 504	1,984	1.38
English Language Learners (ELL)	7,112	4.96

**Table E-5. 2014–15 OCCT: Summary of Participation by Demographic Category—Writing**

<i>Description</i>	<i>Tested</i>	
	<i>Number</i>	<i>Percent</i>
All Students	95,352	100.00
Female	46,521	48.79
Male	48,831	51.21
Hispanic or Latino	14,596	15.31
American Indian/Alaskan Native	14,618	15.33
Asian	1,899	1.99
Black/African American	8,520	8.94
Pacific Islander	253	0.27
White/Caucasian	48,486	50.85
Two or More Races	6,980	7.32
Economically Disadvantaged	56,911	59.69
Individual Education Program (IEP)	15,805	16.58
Plan 504	1,341	1.41
English Language Learners (ELL)	4,523	4.74

# APPENDIX F—ACCOMMODATION FREQUENCIES



**Table F-1. 2014–15 OCCT: Numbers of Students Tested With Accommodations by Accommodation Type and Grade—Mathematics**

<i>Accommodation Code</i>	<i>Grade 3</i>	<i>Grade 4</i>	<i>Grade 5</i>	<i>Grade 6</i>	<i>Grade 7</i>	<i>Grade 8</i>
AccomClarification	2,246	1,228	975	539	529	392
AccomColorContrast	0	0	0	259	302	279
AccomDictionary	75	46	53	126	360	327
AccomGeneralMasking	0	0	0	278	245	234
AccomGrouping	2,185	1,148	984	372	312	289
AccomMagnification	0	0	0	361	391	384
AccomPresentation	4,740	4,196	5,251	3,995	4,084	3,507
AccomReadAloud	0	0	0	4,571	4,407	3,590
AccomReadAloudIEP	0	0	0	6	26	24
AccomReadAloudReading	0	0	0	0	0	0
AccomResponse	1,469	1,636	1,819	697	512	482
AccomSetting	5,511	4,971	5,962	4,300	4,244	3,794
AccomTiming	4,381	3,957	4,660	2,955	2,604	2,118
AccomTranscribe	26	41	29	21	18	12
AccomTranslator	224	171	145	103	111	125
AccomTurnoffUniversal	0	0	0	108	99	88

**Table F-2. 2014–15 OCCT: Numbers of Students Tested With Accommodations by Accommodation Type and Grade—Reading**

<i>Accommodation Code</i>	<i>Grade 3</i>	<i>Grade 4</i>	<i>Grade 5</i>	<i>Grade 6</i>	<i>Grade 7</i>	<i>Grade 8</i>
AccomClarification	757	373	374	419	374	260
AccomColorContrast	0	0	0	251	291	257
AccomDictionary	92	66	42	96	290	262
AccomGeneralMasking	0	0	0	271	242	225
AccomGrouping	1,618	887	732	296	211	211
AccomMagnification	0	0	0	362	383	376
AccomPresentation	3,052	2,855	3,580	3,798	3,966	3,451
AccomReadAloud	0	0	0	0	0	0
AccomReadAloudIEP	548	389	496	34	92	66
AccomReadAloudReading	0	0	0	6	25	24
AccomResponse	1,271	1,587	1,673	695	507	470
AccomSetting	5,483	4,887	5,791	4,281	4,218	3,853
AccomTiming	4,332	3,797	4,489	2,953	2,580	2,133
AccomTranscribe	16	44	41	22	19	7
AccomTranslator	76	51	34	49	37	62
AccomTurnoffUniversal	0	0	0	108	92	82

**Table F-3. 2014–15 OCCT: Numbers of Students Tested With Accommodations by Accommodation Type and Grade—Science**

<i>Accommodation Code</i>	<i>Grade 5</i>	<i>Grade 8</i>
AccomClarification	957	471
AccomColorContrast	0	0
AccomDictionary	60	250
AccomGeneralMasking	0	0
AccomGrouping	954	385
AccomMagnification	0	0
AccomPresentation	5,124	3,013
AccomReadAloud	0	0
AccomReadAloudIEP	0	0
AccomReadAloudReading	0	0
AccomResponse	1,734	460
AccomSetting	5,801	3,926
AccomTiming	4,562	2,086
AccomTranscribe	37	13
AccomTranslator	140	106
AccomTurnoffUniversal	0	0

**Table F-4. 2014–15 OCCT: Numbers of Students Tested With Accommodations by Accommodation Type and Grade—Social Studies**

<i>Accommodation Code</i>	<i>Grade 5</i>	<i>Grade 7</i>	<i>Grade 8</i>
AccomClarification	938	523	494
AccomColorContrast	0	300	0
AccomDictionary	49	366	215
AccomGeneralMasking	0	241	0
AccomGrouping	914	287	362
AccomMagnification	0	387	0
AccomPresentation	5,053	4,020	2,955
AccomReadAloud	0	4,432	0
AccomReadAloudIEP	0	25	0
AccomReadAloudReading	0	0	0
AccomResponse	1,718	505	406
AccomSetting	5,788	4,182	3,927
AccomTiming	4,560	2,557	2,102
AccomTranscribe	27	16	9
AccomTranslator	139	85	91
AccomTurnoffUniversal	0	98	0

**Table F-5. 2014–15 OCCT: Numbers of Students Tested With Accommodations by Accommodation Type and Grade—Writing**

<i>Accommodation Code</i>	<i>Grade 5</i>	<i>Grade 8</i>
AccomClarification	692	330
AccomColorContrast	0	0
AccomDictionary	56	182
AccomGeneralMasking	0	0
AccomGrouping	648	254
AccomMagnification	0	0
AccomPresentation	3,556	1,814
AccomReadAloud	0	0
AccomReadAloudIEP	0	0
AccomReadAloudReading	0	0
AccomResponse	3,513	1,641
AccomSetting	5,327	3,838
AccomTiming	3,968	2,248
AccomTranscribe	107	25
AccomTranslator	83	46
AccomTurnoffUniversal	0	0

# APPENDIX G—INTERRATER AGREEMENT





**Table G-1. 2014–15 OCCT: Item-Level Interrater Agreement Statistics  
by Grade—Writing**

Grade	Item	Number of		Percent		Correlation	Percent of Third Scores
		Score Categories	Responses Scored Twice	Exact	Adjacent		
5	143965AG	5	47,384	62.83	35.97	0.62	0.96
	143965AI	5	47,384	63.34	35.31	0.64	1.09
	143965AO	5	47,384	63.28	35.51	0.63	0.96
	143965AS	5	47,384	62.68	36.11	0.63	0.96
	143965AW	5	47,384	62.77	35.97	0.63	0.98
8	143968AG	5	46,357	60.76	37.43	0.66	1.31
	143968AI	5	46,357	62.86	35.51	0.69	1.15
	143968AO	5	46,357	62.27	36.16	0.68	1.15
	143968AS	5	46,357	61.25	36.91	0.66	1.31
	143968AW	5	46,357	61.76	36.52	0.67	1.25

# APPENDIX H—ITEM-LEVEL CLASSICAL STATISTICS



**Table H-1. 2014–15 OCCT: Item-Level Classical Test Theory Statistics—  
Mathematics Grade 3**

<i>Item:</i>		<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>	<i>Item:</i>		<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
<i>Number</i>	<i>Type</i>				<i>Number</i>	<i>Type</i>			
147376A	MC	0.69	0.61	0	147495A	MC	0.76	0.46	0
147379A	MC	0.73	0.42	0	147501A	MC	0.86	0.48	0
147381A	MC	0.85	0.47	0	147502A	MC	0.80	0.38	0
147382A	MC	0.88	0.44	0	147503A	MC	0.78	0.63	0
147385A	MC	0.45	0.22	0	147505A	MC	0.86	0.46	0
147387A	MC	0.77	0.49	0	147507A	MC	0.93	0.35	0
147388A	MC	0.73	0.46	0	147509A	MC	0.69	0.52	0
147390A	MC	0.89	0.37	0	147510A	MC	0.59	0.57	0
147391A	MC	0.95	0.27	0	147512A	MC	0.89	0.29	0
147392A	MC	0.74	0.52	0	147514A	MC	0.36	0.38	1
147395A	MC	0.78	0.45	0	147515A	MC	0.63	0.50	1
147397A	MC	0.90	0.37	0	147516A	MC	0.55	0.48	0
147399A	MC	0.59	0.55	0	147517A	MC	0.45	0.39	0
147402A	MC	0.89	0.31	0	147518A	MC	0.61	0.49	1
147409A	MC	0.44	0.47	0	147520A	MC	0.93	0.32	0
147413A	MC	0.79	0.38	0	150642A	MC	0.46	0.35	0
147415A	MC	0.73	0.53	0	150648A	MC	0.77	0.52	0
147417A	MC	0.74	0.39	0	150651A	MC	0.54	0.46	0
147418A	MC	0.77	0.43	0	150653A	MC	0.68	0.50	0
147421A	MC	0.73	0.41	0	150654A	MC	0.68	0.33	0
147423A	MC	0.79	0.39	0	150656A	MC	0.78	0.43	0
147425A	MC	0.78	0.37	0	150658A	MC	0.51	0.43	1
147426A	MC	0.75	0.64	0	150660A	MC	0.64	0.55	1
147428A	MC	0.45	0.50	0					
147429A	MC	0.51	0.47	0					
147493A	MC	0.61	0.53	0					
147494A	MC	0.72	0.49	0					

**Table H-2. 2014–15 OCCT: Item-Level Classical Test Theory Statistics—  
Mathematics Grade 4**

<i>Item:</i>		<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>	<i>Item:</i>		<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
<i>Number</i>	<i>Type</i>				<i>Number</i>	<i>Type</i>			
148222A	MC	0.57	0.31	0	148245A	MC	0.78	0.45	0
148223A	MC	0.90	0.36	0	148247A	MC	0.83	0.45	0
148226A	MC	0.68	0.41	0	148248A	MC	0.85	0.39	0
148227A	MC	0.81	0.40	0	148249A	MC	0.81	0.32	0
148230A	MC	0.56	0.37	0	148251A	MC	0.67	0.39	0
148231A	MC	0.69	0.44	0	148253A	MC	0.86	0.43	0
148232A	MC	0.77	0.29	0	148254A	MC	0.71	0.44	0
148234A	MC	0.79	0.39	0	148256A	MC	0.86	0.39	0
148236A	MC	0.71	0.46	0	148258A	MC	0.71	0.45	0
148237A	MC	0.68	0.52	0	148259A	MC	0.69	0.46	0
148238A	MC	0.64	0.45	0	148261A	MC	0.82	0.48	0
148240A	MC	0.90	0.43	0	148262A	MC	0.78	0.31	0
148241A	MC	0.76	0.42	0	148263A	MC	0.61	0.45	0

continued

<i>Item:</i>		<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>	<i>Item:</i>		<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
<i>Number</i>	<i>Type</i>				<i>Number</i>	<i>Type</i>			
148264A	MC	0.75	0.48	0	148343A	MC	0.87	0.35	0
148275A	MC	0.80	0.34	0	148344A	MC	0.81	0.42	0
148282A	MC	0.63	0.44	0	148347A	MC	0.63	0.51	0
148285A	MC	0.75	0.38	0	148349A	MC	0.65	0.50	0
148286A	MC	0.87	0.38	0	148351A	MC	0.59	0.27	0
148287A	MC	0.58	0.41	0	148353A	MC	0.68	0.44	0
148293A	MC	0.78	0.31	0	148355A	MC	0.84	0.34	0
148301A	MC	0.72	0.47	0	148358A	MC	0.83	0.39	0
148336A	MC	0.67	0.49	0	148360A	MC	0.67	0.43	1
148338A	MC	0.83	0.34	0	150502A	MC	0.82	0.40	0
148340A	MC	0.80	0.35	0	150584A	MC	0.92	0.39	0
148342A	MC	0.64	0.44	0	150587A	MC	0.74	0.32	0

**Table H-3. 2014–15 OCCT: Item-Level Classical Test Theory Statistics—  
Mathematics Grade 5**

<i>Item:</i>		<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>	<i>Item:</i>		<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
<i>Number</i>	<i>Type</i>				<i>Number</i>	<i>Type</i>			
149214A	MC	0.84	0.43	0	149242A	MC	0.51	0.29	0
149215A	MC	0.57	0.48	0	149243A	MC	0.67	0.47	0
149216A	MC	0.81	0.43	0	149244A	MC	0.83	0.26	0
149217A	MC	0.72	0.37	0	149245A	MC	0.44	0.36	0
149218A	MC	0.83	0.35	0	149246A	MC	0.66	0.48	0
149219A	MC	0.77	0.37	0	149247A	MC	0.57	0.55	0
149220A	MC	0.91	0.33	0	149248A	MC	0.58	0.32	0
149221A	MC	0.69	0.50	0	149249A	MC	0.70	0.40	0
149223A	MC	0.86	0.32	0	149250A	MC	0.83	0.38	0
149224A	MC	0.28	0.27	0	149251A	MC	0.71	0.42	0
149225A	MC	0.85	0.33	0	149252A	MC	0.82	0.20	0
149226A	MC	0.62	0.48	0	149253A	MC	0.81	0.47	0
149227A	MC	0.77	0.42	0	149254A	MC	0.70	0.57	0
149228A	MC	0.77	0.39	0	149255A	MC	0.91	0.29	0
149229A	MC	0.74	0.34	0	149256A	MC	0.59	0.28	0
149230A	MC	0.60	0.52	0	149257A	MC	0.71	0.44	0
149231A	MC	0.54	0.42	0	149258A	MC	0.81	0.45	0
149232A	MC	0.89	0.40	0	149259A	MC	0.70	0.55	0
149233A	MC	0.45	0.37	0	149260A	MC	0.74	0.39	0
149234A	MC	0.52	0.38	0	149261A	MC	0.39	0.42	0
149235A	MC	0.82	0.42	0	149262A	MC	0.71	0.45	0
149236A	MC	0.47	0.48	0	149263A	MC	0.91	0.36	0
149237A	MC	0.69	0.44	0	150423A	MC	0.66	0.55	0
149238A	MC	0.68	0.46	0					
149239A	MC	0.79	0.38	0					
149240A	MC	0.34	0.42	0					
149241A	MC	0.76	0.39	0					

**Table H-4. 2014–15 OCCT: Item-Level Classical Test Theory Statistics—  
Mathematics Grade 6**

<i>Item:</i>		<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>	<i>Item:</i>		<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
<i>Number</i>	<i>Type</i>				<i>Number</i>	<i>Type</i>			
149319A	MC	0.73	0.40	0	149413A	MC	0.74	0.48	0
149323A	MC	0.37	0.47	0	149415A	MC	0.59	0.56	0
149325A	MC	0.45	0.37	0	149419A	MC	0.47	0.34	0
149331A	MC	0.64	0.33	0	149423A	MC	0.95	0.32	0
149333A	MC	0.51	0.38	0	149428A	MC	0.66	0.51	0
149335A	MC	0.63	0.47	0	149434A	MC	0.53	0.36	0
149337A	MC	0.55	0.42	0	149437A	MC	0.78	0.39	0
149341A	MC	0.54	0.39	0	149442A	MC	0.45	0.51	0
149343A	MC	0.95	0.24	0	149446A	MC	0.68	0.40	0
149345A	MC	0.65	0.39	0	149452A	MC	0.81	0.34	0
149347A	MC	0.67	0.29	0	149456A	MC	0.49	0.29	0
149348A	MC	0.52	0.23	0	149465A	MC	0.49	0.35	0
149350A	MC	0.46	0.50	0	149467A	MC	0.79	0.42	0
149353A	MC	0.85	0.38	0	149470A	MC	0.83	0.39	0
149354A	MC	0.83	0.41	0	149477A	MC	0.45	0.26	0
149356A	MC	0.77	0.29	0	149482A	MC	0.81	0.31	0
149357A	MC	0.67	0.51	0	149486A	MC	0.54	0.36	0
149358A	MC	0.43	0.33	0	149493A	MC	0.40	0.32	0
149362A	MC	0.63	0.58	0	152907A	MC	0.36	0.32	0
149369A	MC	0.62	0.39	0	152930A	MC	0.74	0.44	0
149372A	MC	0.61	0.35	0	152940A	MC	0.51	0.36	0
149377A	MC	0.54	0.28	0	152948A	MC	0.38	0.40	0
149380A	MC	0.84	0.37	0	152957A	MC	0.48	0.33	0
149384A	MC	0.83	0.41	0					
149387A	MC	0.62	0.34	0					
149405A	MC	0.75	0.33	0					
149411A	MC	0.48	0.52	0					

**Table H-5. 2014–15 OCCT: Item-Level Classical Test Theory Statistics—  
Mathematics Grade 7**

<i>Item:</i>		<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>	<i>Item:</i>		<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
<i>Number</i>	<i>Type</i>				<i>Number</i>	<i>Type</i>			
147987A	MC	0.83	0.33	0	148708A	MC	0.58	0.33	0
147992A	MC	0.94	0.28	0	148711A	MC	0.54	0.48	0
148038A	MC	0.47	0.43	0	148716A	MC	0.57	0.39	0
148142A	MC	0.50	0.47	0	148725A	MC	0.68	0.49	0
148182A	MC	0.71	0.40	0	148730A	MC	0.60	0.56	0
148508A	MC	0.62	0.45	0	148739A	MC	0.59	0.45	0
148518A	MC	0.36	0.21	0	148784A	MC	0.71	0.39	0
148521A	MC	0.40	0.40	0	148817A	MC	0.54	0.48	0
148524A	MC	0.54	0.42	0	148821A	MC	0.71	0.40	0
148687A	MC	0.54	0.48	0	148826A	MC	0.87	0.41	0
148692A	MC	0.68	0.28	0	148827A	MC	0.66	0.52	0
148696A	MC	0.54	0.50	0	148828A	MC	0.67	0.36	0
148704A	MC	0.56	0.45	0	148837A	MC	0.60	0.36	0

continued

<i>Item:</i>		<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
<i>Number</i>	<i>Type</i>			
148838A	MC	0.37	0.43	0
148845A	MC	0.42	0.42	0
148847A	MC	0.44	0.29	0
148852A	MC	0.57	0.48	0
148855A	MC	0.86	0.42	0
148858A	MC	0.58	0.30	0
148865A	MC	0.63	0.57	0
148885A	MC	0.68	0.41	0
148889A	MC	0.69	0.47	0
148897A	MC	0.64	0.28	0
148898A	MC	0.50	0.42	0
148901A	MC	0.33	0.21	0

<i>Item:</i>		<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
<i>Number</i>	<i>Type</i>			
148907A	MC	0.89	0.34	0
148912A	MC	0.50	0.34	0
148916A	MC	0.62	0.47	0
148923A	MC	0.61	0.47	0
148926A	MC	0.89	0.30	0
148929A	MC	0.64	0.39	0
148934A	MC	0.55	0.43	0
149066A	MC	0.79	0.45	0
149701A	MC	0.64	0.35	0
152206A	MC	0.25	0.32	0
152213A	MC	0.59	0.32	0
155098A	MC	0.53	0.36	0

**Table H-6. 2014–15 OCCT: Item-Level Classical Test Theory Statistics—  
Mathematics Grade 8**

<i>Item:</i>		<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
<i>Number</i>	<i>Type</i>			
150176A	MC	0.92	0.26	0
150177A	MC	0.44	0.53	0
150178A	MC	0.45	0.37	0
150179A	MC	0.64	0.38	0
150180A	MC	0.63	0.34	0
150181A	MC	0.49	0.39	0
150182A	MC	0.43	0.32	0
150183A	MC	0.47	0.38	0
150184A	MC	0.66	0.40	0
150185A	MC	0.45	0.35	0
150186A	MC	0.48	0.27	0
150187A	MC	0.65	0.39	0
150188A	MC	0.57	0.40	0
150189A	MC	0.67	0.46	0
150190A	MC	0.59	0.30	0
150191A	MC	0.52	0.26	0
150192A	MC	0.48	0.40	0
150193A	MC	0.38	0.40	0
150194A	MC	0.58	0.42	0
150195A	MC	0.51	0.33	0
150196A	MC	0.42	0.45	0
150197A	MC	0.83	0.36	0
150198A	MC	0.60	0.52	0
150199A	MC	0.57	0.47	0
150200A	MC	0.73	0.37	0
150201A	MC	0.50	0.40	0
150202A	MC	0.48	0.30	0

<i>Item:</i>		<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
<i>Number</i>	<i>Type</i>			
150203A	MC	0.70	0.36	0
150204A	MC	0.49	0.29	0
150205A	MC	0.82	0.36	0
150206A	MC	0.67	0.50	0
150207A	MC	0.51	0.50	0
150208A	MC	0.44	0.25	0
150209A	MC	0.72	0.45	0
150210A	MC	0.30	0.21	0
150211A	MC	0.57	0.34	0
150212A	MC	0.47	0.30	0
150213A	MC	0.38	0.51	0
150214A	MC	0.71	0.43	0
150215A	MC	0.55	0.15	0
150216A	MC	0.53	0.39	0
150217A	MC	0.44	0.27	0
150218A	MC	0.58	0.41	0
150219A	MC	0.34	0.25	0
150220A	MC	0.37	0.37	0
150221A	MC	0.39	0.32	0
150222A	MC	0.29	0.21	0
150223A	MC	0.49	0.40	0
150224A	MC	0.40	0.20	0
150225A	MC	0.39	0.42	0



**Table H-7. 2014–15 OCCT: Item-Level Classical Test Theory Statistics—  
Reading Grade 3**

<i>Item:</i>		<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>	<i>Item:</i>		<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
<i>Number</i>	<i>Type</i>				<i>Number</i>	<i>Type</i>			
147341A	MC	0.89	0.34	0	147408A	MC	0.84	0.48	0
147342A	MC	0.72	0.43	0	147411A	MC	0.65	0.38	1
147343A	MC	0.82	0.36	0	147414A	MC	0.75	0.48	0
147345A	MC	0.89	0.39	0	147416A	MC	0.45	0.20	0
147346A	MC	0.88	0.28	0	147427A	MC	0.62	0.43	0
147348A	MC	0.81	0.43	0	147431A	MC	0.51	0.32	0
147351A	MC	0.89	0.44	0	147433A	MC	0.56	0.34	1
147355A	MC	0.66	0.31	0	147436A	MC	0.85	0.54	0
147358A	MC	0.72	0.36	0	147444A	MC	0.58	0.25	0
147359A	MC	0.77	0.40	0	147454A	MC	0.71	0.51	0
147361A	MC	0.79	0.41	0	147456A	MC	0.56	0.46	0
147362A	MC	0.47	0.31	0	147458A	MC	0.60	0.49	1
147363A	MC	0.67	0.32	0	147460A	MC	0.48	0.32	1
147368A	MC	0.80	0.43	1	147481A	MC	0.70	0.31	0
147369A	MC	0.74	0.26	0	147483A	MC	0.74	0.40	0
147371A	MC	0.82	0.55	0	147485A	MC	0.72	0.35	0
147373A	MC	0.48	0.31	0	147487A	MC	0.66	0.48	0
147375A	MC	0.71	0.51	0	147488A	MC	0.59	0.36	1
147377A	MC	0.47	0.11	0	147492A	MC	0.90	0.48	0
147383A	MC	0.79	0.48	1	147496A	MC	0.78	0.52	0
147386A	MC	0.43	0.28	0	147497A	MC	0.53	0.42	0
147389A	MC	0.35	0.25	0	147500A	MC	0.62	0.45	0
147394A	MC	0.58	0.34	0	147504A	MC	0.84	0.44	0
147396A	MC	0.67	0.43	0					
147400A	MC	0.77	0.38	0					
147406A	MC	0.83	0.38	0					
147407A	MC	0.59	0.32	0					

**Table H-8. 2014–15 OCCT: Item-Level Classical Test Theory Statistics—  
Reading Grade 4**

<i>Item:</i>		<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>	<i>Item:</i>		<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
<i>Number</i>	<i>Type</i>				<i>Number</i>	<i>Type</i>			
148542A	MC	0.82	0.39	0	148621A	MC	0.71	0.42	0
148543A	MC	0.80	0.42	0	148622A	MC	0.59	0.29	0
148544A	MC	0.82	0.42	0	148623A	MC	0.63	0.30	0
148545A	MC	0.18	-0.01	0	148624A	MC	0.63	0.40	0
148546A	MC	0.83	0.44	0	148625A	MC	0.70	0.26	0
148548A	MC	0.47	0.23	0	148626A	MC	0.82	0.44	0
148588A	MC	0.65	0.23	0	148685A	MC	0.62	0.47	0
148597A	MC	0.82	0.49	0	148686A	MC	0.68	0.30	0
148606A	MC	0.68	0.37	0	148690A	MC	0.64	0.31	0
148613A	MC	0.63	0.43	0	148712A	MC	0.72	0.30	0
148615A	MC	0.85	0.40	0	148717A	MC	0.54	0.21	0
148619A	MC	0.80	0.34	0	148719A	MC	0.50	0.21	0
148620A	MC	0.87	0.36	0	148754A	MC	0.75	0.23	0

continued

<i>Item:</i>		<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>	<i>Item:</i>		<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
<i>Number</i>	<i>Type</i>				<i>Number</i>	<i>Type</i>			
148755A	MC	0.71	0.28	0	148918A	MC	0.46	0.25	0
148758A	MC	0.80	0.42	0	148932A	MC	0.79	0.37	0
148870A	MC	0.68	0.41	0	148937A	MC	0.94	0.43	0
148873A	MC	0.92	0.42	0	148938A	MC	0.91	0.43	0
148876A	MC	0.93	0.46	0	148956A	MC	0.91	0.42	0
148877A	MC	0.74	0.49	0	148960A	MC	0.55	0.26	0
148879A	MC	0.71	0.39	0	148962A	MC	0.83	0.43	0
148895A	MC	0.86	0.42	0	148978A	MC	0.80	0.40	0
148899A	MC	0.54	0.39	0	148988A	MC	0.87	0.42	0
148903A	MC	0.41	0.19	0	148997A	MC	0.80	0.44	0
148905A	MC	0.74	0.34	0	149005A	MC	0.78	0.53	0
148910A	MC	0.88	0.49	0	160796A	MC	0.82	0.23	0

**Table H-9. 2014–15 OCCT: Item-Level Classical Test Theory Statistics—  
Reading Grade 5**

<i>Item:</i>		<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>	<i>Item:</i>		<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
<i>Number</i>	<i>Type</i>				<i>Number</i>	<i>Type</i>			
148834A	MC	0.89	0.33	0	148925A	MC	0.74	0.32	0
148835A	MC	0.89	0.41	0	148927A	MC	0.72	0.37	0
148839A	MC	0.85	0.37	0	148930A	MC	0.69	0.44	0
148840A	MC	0.75	0.50	0	148933A	MC	0.77	0.53	0
148841A	MC	0.86	0.51	0	148936A	MC	0.59	0.40	0
148844A	MC	0.95	0.45	0	148939A	MC	0.65	0.31	0
148848A	MC	0.80	0.53	0	148945A	MC	0.63	0.49	0
148849A	MC	0.84	0.55	0	148947A	MC	0.85	0.50	0
148851A	MC	0.54	0.42	0	148949A	MC	0.59	0.29	0
148853A	MC	0.60	0.25	0	148951A	MC	0.57	0.28	0
148860A	MC	0.47	0.31	0	148953A	MC	0.47	0.24	0
148863A	MC	0.81	0.37	0	148958A	MC	0.84	0.43	0
148864A	MC	0.57	0.30	0	148961A	MC	0.64	0.40	0
148869A	MC	0.44	0.27	0	148963A	MC	0.82	0.52	0
148871A	MC	0.66	0.28	0	148966A	MC	0.81	0.33	0
148874A	MC	0.83	0.37	0	148967A	MC	0.85	0.59	0
148880A	MC	0.66	0.45	0	148971A	MC	0.80	0.47	0
148882A	MC	0.57	0.33	0	148977A	MC	0.52	0.35	0
148891A	MC	0.63	0.49	0	148979A	MC	0.73	0.56	0
148893A	MC	0.74	0.41	0	148981A	MC	0.73	0.53	0
148896A	MC	0.50	0.35	0	148983A	MC	0.55	0.43	0
148900A	MC	0.67	0.38	0	150277A	MC	0.72	0.39	0
148904A	MC	0.80	0.49	0	154020A	MC	0.92	0.35	0
148906A	MC	0.88	0.44	0					
148915A	MC	0.65	0.37	0					
148917A	MC	0.74	0.44	0					
148919A	MC	0.76	0.28	0					

**Table H-10. 2014–15 OCCT: Item-Level Classical Test Theory Statistics—  
Reading Grade 6**

<i>Item:</i>		<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>	<i>Item:</i>		<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
<i>Number</i>	<i>Type</i>				<i>Number</i>	<i>Type</i>			
149340A	MC	0.52	0.28	0	149494A	MC	0.78	0.45	0
149378A	MC	0.18	0.00	0	149499A	MC	0.88	0.43	0
149381A	MC	0.91	0.32	0	149506A	MC	0.73	0.40	0
149383A	MC	0.63	0.30	0	149508A	MC	0.76	0.52	0
149386A	MC	0.82	0.40	0	149513A	MC	0.71	0.43	0
149395A	MC	0.75	0.37	0	149516A	MC	0.83	0.49	0
149396A	MC	0.63	0.35	0	149524A	MC	0.53	0.33	0
149400A	MC	0.79	0.37	0	149526A	MC	0.71	0.33	0
149403A	MC	0.68	0.35	0	149529A	MC	0.79	0.50	0
149406A	MC	0.47	0.11	0	149530A	MC	0.67	0.37	0
149409A	MC	0.40	0.21	0	149531A	MC	0.42	0.32	0
149410A	MC	0.53	0.28	0	149532A	MC	0.77	0.37	0
149414A	MC	0.72	0.37	0	149536A	MC	0.48	0.36	0
149425A	MC	0.57	0.32	0	149538A	MC	0.58	0.31	0
149435A	MC	0.75	0.42	0	149541A	MC	0.67	0.42	0
149439A	MC	0.92	0.50	0	149542A	MC	0.63	0.42	0
149441A	MC	0.67	0.27	0	149544A	MC	0.75	0.41	0
149444A	MC	0.92	0.50	0	149545A	MC	0.65	0.30	0
149451A	MC	0.66	0.16	0	149546A	MC	0.50	0.20	0
149458A	MC	0.61	0.22	0	149548A	MC	0.54	0.29	0
149466A	MC	0.68	0.45	0	154480A	MC	0.68	0.41	0
149471A	MC	0.67	0.38	0	154490A	MC	0.89	0.41	0
149478A	MC	0.91	0.41	0	154506A	MC	0.73	0.39	0
149481A	MC	0.64	0.31	0					
149483A	MC	0.90	0.42	0					
149485A	MC	0.85	0.46	0					
149488A	MC	0.63	0.44	0					

**Table H-11. 2014–15 OCCT: Item-Level Classical Test Theory Statistics—  
Reading Grade 7**

<i>Item:</i>		<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>	<i>Item:</i>		<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
<i>Number</i>	<i>Type</i>				<i>Number</i>	<i>Type</i>			
148763A	MC	0.95	0.36	0	148804A	MC	0.53	0.31	0
148765A	MC	0.75	0.25	0	148811A	MC	0.89	0.42	0
148769A	MC	0.66	0.33	0	148820A	MC	0.75	0.41	0
148777A	MC	0.69	0.28	0	148823A	MC	0.70	0.39	0
148780A	MC	0.83	0.32	0	148829A	MC	0.71	0.34	0
148782A	MC	0.80	0.40	0	148831A	MC	0.93	0.42	0
148790A	MC	0.57	0.39	0	148846A	MC	0.83	0.34	0
148793A	MC	0.85	0.42	0	148850A	MC	0.82	0.33	0
148795A	MC	0.75	0.35	0	148859A	MC	0.91	0.40	0
148796A	MC	0.54	0.32	0	148861A	MC	0.57	0.29	0
148798A	MC	0.68	0.23	0	148866A	MC	0.80	0.39	0
148800A	MC	0.75	0.47	0	148878A	MC	0.88	0.45	0
148802A	MC	0.57	0.33	0	148884A	MC	0.76	0.40	0

continued

<i>Item:</i>		<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>	<i>Item:</i>		<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
<i>Number</i>	<i>Type</i>				<i>Number</i>	<i>Type</i>			
148890A	MC	0.68	0.15	0	148973A	MC	0.77	0.43	0
148894A	MC	0.52	0.15	0	148976A	MC	0.85	0.40	0
148902A	MC	0.76	0.36	0	148980A	MC	0.57	0.30	0
148935A	MC	0.56	0.30	0	148985A	MC	0.79	0.37	0
148941A	MC	0.81	0.40	0	154639A	MC	0.60	0.32	0
148944A	MC	0.72	0.35	0	154645A	MC	0.80	0.42	0
148946A	MC	0.70	0.32	0	154710A	MC	0.79	0.28	0
148948A	MC	0.68	0.37	0	154720A	MC	0.85	0.29	0
148950A	MC	0.68	0.45	0	154725A	MC	0.93	0.39	0
148952A	MC	0.81	0.43	0	154730A	MC	0.75	0.42	0
148954A	MC	0.80	0.48	0	154732A	MC	0.79	0.23	0
148969A	MC	0.69	0.39	0	154921A	MC	0.61	0.31	0

**Table H-12. 2014–15 OCCT: Item-Level Classical Test Theory Statistics—  
Reading Grade 8**

<i>Item:</i>		<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>	<i>Item:</i>		<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
<i>Number</i>	<i>Type</i>				<i>Number</i>	<i>Type</i>			
149328A	MC	0.96	0.33	0	149502A	MC	0.83	0.40	0
149336A	MC	0.87	0.37	0	149503A	MC	0.89	0.43	0
149342A	MC	0.92	0.36	0	149505A	MC	0.58	0.18	0
149344A	MC	0.84	0.42	0	149507A	MC	0.66	0.20	0
149351A	MC	0.90	0.20	0	149549A	MC	0.50	0.24	0
149368A	MC	0.94	0.38	0	149550A	MC	0.84	0.47	0
149370A	MC	0.83	0.41	0	149553A	MC	0.80	0.37	0
149371A	MC	0.67	0.50	0	149560A	MC	0.74	0.40	0
149373A	MC	0.93	0.48	0	149563A	MC	0.60	0.33	0
149374A	MC	0.89	0.42	0	149577A	MC	0.79	0.39	0
149376A	MC	0.57	0.30	0	149580A	MC	0.37	0.24	0
149398A	MC	0.86	0.44	0	149583A	MC	0.36	0.19	0
149401A	MC	0.85	0.39	0	149589A	MC	0.86	0.46	0
149412A	MC	0.89	0.25	0	149591A	MC	0.43	0.41	0
149416A	MC	0.77	0.34	0	149597A	MC	0.69	0.36	0
149426A	MC	0.69	0.37	0	149600A	MC	0.63	0.22	0
149429A	MC	0.72	0.37	0	149603A	MC	0.90	0.45	0
149430A	MC	0.88	0.37	0	149616A	MC	0.45	0.24	0
149431A	MC	1.00	0.00	0	149619A	MC	0.63	0.35	0
149459A	MC	0.91	0.40	0	149623A	MC	0.78	0.42	0
149460A	MC	0.86	0.45	0	149626A	MC	0.58	0.43	0
149461A	MC	0.88	0.39	0	149631A	MC	0.76	0.30	0
149462A	MC	0.71	0.40	0	149636A	MC	0.63	0.30	0
149463A	MC	0.92	0.53	0					
149464A	MC	0.79	0.37	0					
149500A	MC	0.53	0.28	0					
149501A	MC	0.64	0.39	0					

**Table H-13. 2014–15 OCCT: Item-Level Classical Test Theory Statistics—  
Science Grade 5**

<i>Item:</i>		<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>	<i>Item:</i>		<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
<i>Number</i>	<i>Type</i>				<i>Number</i>	<i>Type</i>			
149905A	MC	0.83	0.26	0	149964A	MC	0.71	0.38	0
149907A	MC	0.69	0.41	0	149965A	MC	0.51	0.29	0
149910A	MC	0.92	0.31	0	149967A	MC	0.49	0.32	0
149911A	MC	0.68	0.24	0	149980A	MC	0.77	0.43	0
149917A	MC	0.75	0.39	0	149981A	MC	0.82	0.47	0
149920A	MC	0.56	0.22	0	149982A	MC	0.83	0.40	0
149922A	MC	0.80	0.26	0	149984A	MC	0.71	0.40	0
149926A	MC	0.65	0.37	0	149985A	MC	0.68	0.44	0
149930A	MC	0.66	0.44	0	149989A	MC	0.83	0.33	0
149931A	MC	0.58	0.45	0	154260A	MC	0.59	0.41	0
149932A	MC	0.53	0.36	0	154261A	MC	0.73	0.30	0
149933A	MC	0.90	0.34	0	154263A	MC	0.62	0.40	0
149934A	MC	0.73	0.39	0	154265A	MC	0.64	0.45	0
149936A	MC	0.54	0.22	0	154266A	MC	0.40	0.32	0
149937A	MC	0.75	0.41	0	154270A	MC	0.54	0.29	0
149939A	MC	0.67	0.39	0	154274A	MC	0.53	0.36	0
149941A	MC	0.85	0.43	0	154278A	MC	0.78	0.39	0
149943A	MC	0.81	0.33	0	154283A	MC	0.50	0.31	0
149945A	MC	0.77	0.43	0	154286A	MC	0.77	0.48	0
149947A	MC	0.89	0.46	0	154287A	MC	0.76	0.46	0
149956A	MC	0.71	0.39	0	154290A	MC	0.80	0.46	0
149961A	MC	0.88	0.39	0					
149962A	MC	0.81	0.49	0					
149963A	MC	0.84	0.41	0					

**Table H-14. 2014–15 OCCT: Item-Level Classical Test Theory Statistics—  
Science Grade 8**

<i>Item:</i>		<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>	<i>Item:</i>		<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
<i>Number</i>	<i>Type</i>				<i>Number</i>	<i>Type</i>			
149793A	MC	0.54	0.34	0	149901A	MC	0.56	0.25	0
149803A	MC	0.73	0.36	0	149904A	MC	0.54	0.43	0
149809A	MC	0.89	0.40	0	149906A	MC	0.71	0.51	0
149814A	MC	0.62	0.32	0	149913A	MC	0.72	0.42	0
149821A	MC	0.88	0.38	0	154135A	MC	0.88	0.26	0
149822A	MC	0.69	0.46	0	154137A	MC	0.25	0.27	0
149823A	MC	0.82	0.34	0	154140A	MC	0.57	0.39	0
149825A	MC	0.86	0.31	0	154142A	MC	0.68	0.26	0
149831A	MC	0.72	0.29	0	154143A	MC	0.41	0.19	0
149857A	MC	0.62	0.30	0	154144A	MC	0.67	0.30	0
149862A	MC	0.40	0.28	0	154145A	MC	0.80	0.47	0
149866A	MC	0.42	0.36	0	154146A	MC	0.36	0.24	0
149871A	MC	0.86	0.43	0	154148A	MC	0.67	0.45	0
149883A	MC	0.75	0.23	0	154149A	MC	0.71	0.39	0
149889A	MC	0.54	0.28	0	154150A	MC	0.45	0.21	0
149900A	MC	0.79	0.42	0	154153A	MC	0.72	0.38	0

continued

<i>Item:</i>		<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
<i>Number</i>	<i>Type</i>			
154155A	MC	0.56	0.40	0
154157A	MC	0.72	0.29	0
154162A	MC	0.71	0.46	0
154178A	MC	0.75	0.38	0
154180A	MC	0.61	0.37	0
154181A	MC	0.84	0.44	0
154184A	MC	0.72	0.35	0

<i>Item:</i>		<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
<i>Number</i>	<i>Type</i>			
154186A	MC	0.44	0.22	0
154187A	MC	0.70	0.36	0
154188A	MC	0.43	0.23	0
154190A	MC	0.93	0.39	0
154191A	MC	0.70	0.34	0
154193A	MC	0.96	0.35	0

**Table H-15. 2014–15 OCCT: Item-Level Classical Test Theory Statistics—  
Social Studies Grade 5**

<i>Item:</i>		<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
<i>Number</i>	<i>Type</i>			
151745A	MC	0.78	0.34	0
151746A	MC	0.76	0.30	0
151748A	MC	0.51	0.13	0
151753A	MC	0.55	0.38	0
151761A	MC	0.62	0.46	0
151764A	MC	0.66	0.42	0
151771A	MC	0.69	0.33	0
151777A	MC	0.45	0.35	0
151779A	MC	0.60	0.40	0
151784A	MC	0.50	0.44	0
151786A	MC	0.71	0.33	0
151789A	MC	0.64	0.33	0
151791A	MC	0.51	0.43	0
151793A	MC	0.47	0.37	0
151797A	MC	0.77	0.43	0
151801A	MC	0.54	0.29	0
151803A	MC	0.49	0.27	0
151812A	MC	0.67	0.38	0
151814A	MC	0.40	0.35	0
151818A	MC	0.60	0.42	0
151820A	MC	0.63	0.36	0
151823A	MC	0.75	0.31	0
151826A	MC	0.65	0.44	0
151832A	MC	0.64	0.47	0
151834A	MC	0.56	0.34	0
151836A	MC	0.66	0.49	0
151837A	MC	0.64	0.38	0

<i>Item:</i>		<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
<i>Number</i>	<i>Type</i>			
151840A	MC	0.70	0.40	0
151842A	MC	0.60	0.46	0
151844A	MC	0.52	0.37	0
151845A	MC	0.62	0.25	0
154691A	MC	0.38	0.38	0
155150A	MC	0.72	0.32	0
155153A	MC	0.65	0.34	0
155163A	MC	0.61	0.41	0
155165A	MC	0.58	0.30	0
155169A	MC	0.46	0.27	0
155171A	MC	0.70	0.35	0
155176A	MC	0.49	0.23	0
155781A	MC	0.72	0.40	0
155783A	MC	0.58	0.46	0
155785A	MC	0.55	0.34	0
155788A	MC	0.47	0.32	0
155790A	MC	0.72	0.40	0
155792A	MC	0.36	0.18	0
155793A	MC	0.58	0.37	0
155795A	MC	0.41	0.26	0
155798A	MC	0.51	0.27	0
155800A	MC	0.63	0.33	0
156595A	MC	0.32	0.23	0

**Table H-16. 2014–15 OCCT: Item-Level Classical Test Theory Statistics—  
Geography Grade 7**

<i>Item:</i>		<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
<i>Number</i>	<i>Type</i>			
151747A	MC	0.59	0.40	0
151751A	MC	0.48	0.30	0

<i>Item:</i>		<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
<i>Number</i>	<i>Type</i>			
151754A	MC	0.76	0.32	0
151756A	MC	0.53	0.26	0

continued

<i>Item:</i>		<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>	<i>Item:</i>		<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
<i>Number</i>	<i>Type</i>				<i>Number</i>	<i>Type</i>			
151759A	MC	0.44	0.32	0	151853A	MC	0.48	0.40	0
151762A	MC	0.46	0.37	0	151854A	MC	0.50	0.44	0
151765A	MC	0.63	0.31	0	151860A	MC	0.47	0.33	0
151766A	MC	0.42	0.25	0	151869A	MC	0.53	0.15	0
151769A	MC	0.62	0.41	0	151871A	MC	0.66	0.39	0
151770A	MC	0.53	0.27	0	151876A	MC	0.53	0.34	0
151773A	MC	0.70	0.35	0	151883A	MC	0.51	0.38	0
151775A	MC	0.47	0.36	0	151887A	MC	0.50	0.29	0
151778A	MC	0.53	0.39	0	151890A	MC	0.60	0.32	0
151781A	MC	0.45	0.40	0	151894A	MC	0.57	0.28	0
151783A	MC	0.53	0.29	0	151897A	MC	0.65	0.29	0
151787A	MC	0.42	0.24	0	155494A	MC	0.57	0.35	0
151792A	MC	0.69	0.46	0	155510A	MC	0.42	0.14	0
151795A	MC	0.56	0.21	0	155521A	MC	0.40	0.22	0
151798A	MC	0.80	0.34	0	155524A	MC	0.56	0.20	0
151800A	MC	0.80	0.42	0	155529A	MC	0.64	0.35	0
151804A	MC	0.27	0.25	0	155533A	MC	0.47	0.18	0
151805A	MC	0.32	0.16	0	155539A	MC	0.52	0.20	0
151806A	MC	0.52	0.39	0	155552A	MC	0.53	0.29	0
151809A	MC	0.52	0.18	0	156376A	MC	0.70	0.43	0
151815A	MC	0.25	0.21	0	156377A	MC	0.53	0.44	0
151822A	MC	0.70	0.49	0					
151825A	MC	0.45	0.27	0					
151851A	MC	0.37	0.23	0					

**Table H-17. 2014–15 OCCT: Item-Level Classical Test Theory Statistics—  
U.S. History Grade 8**

<i>Item:</i>		<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>	<i>Item:</i>		<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
<i>Number</i>	<i>Type</i>				<i>Number</i>	<i>Type</i>			
151864A	MC	0.91	0.34	0	151920A	MC	0.80	0.46	0
151872A	MC	0.70	0.39	0	151923A	MC	0.81	0.43	0
151875A	MC	0.88	0.28	0	151926A	MC	0.65	0.45	0
151880A	MC	0.50	0.29	0	151928A	MC	0.71	0.40	0
151882A	MC	0.61	0.34	0	151935A	MC	0.82	0.52	0
151885A	MC	0.65	0.37	0	151939A	MC	0.82	0.37	0
151886A	MC	0.59	0.24	0	151942A	MC	0.45	0.31	0
151891A	MC	0.61	0.32	0	151945A	MC	0.68	0.39	0
151893A	MC	0.67	0.26	0	151947A	MC	0.58	0.23	0
151896A	MC	0.56	0.20	0	151950A	MC	0.63	0.44	0
151899A	MC	0.73	0.43	0	151951A	MC	0.71	0.50	0
151902A	MC	0.35	0.20	0	151953A	MC	0.55	0.39	0
151904A	MC	0.37	0.05	0	151954A	MC	0.72	0.48	0
151906A	MC	0.79	0.41	0	151956A	MC	0.48	0.32	0
151910A	MC	0.58	0.21	0	151958A	MC	0.55	0.41	0
151912A	MC	0.69	0.30	0	151960A	MC	0.63	0.44	0
151913A	MC	0.79	0.50	0	151961A	MC	0.69	0.36	0
151916A	MC	0.61	0.21	0	151962A	MC	0.49	0.34	0
151918A	MC	0.56	0.37	0	151966A	MC	0.59	0.40	0

continued

<i>Item:</i>		<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
<i>Number</i>	<i>Type</i>			
151969A	MC	0.54	0.39	0
151972A	MC	0.51	0.22	0
151973A	MC	0.56	0.32	0
151975A	MC	0.51	0.19	0
151976A	MC	0.59	0.39	0
151977A	MC	0.66	0.56	0

<i>Item:</i>		<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
<i>Number</i>	<i>Type</i>			
151978A	MC	0.73	0.47	0
151979A	MC	0.39	0.26	0
155380A	MC	0.74	0.30	0
155952A	MC	0.81	0.35	0
155956A	MC	0.61	0.42	0
155959A	MC	0.80	0.38	0

**Table H-18. 2014–15 OCCT: Item-Level Classical Test Theory Statistics—  
Writing Grade 5**

<i>Item:</i>		<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
<i>Number</i>	<i>Type</i>			
143965AG	WP	0.57	0.97	1
143965AI	WP	0.57	0.95	1
143965AO	WP	0.57	0.97	1

<i>Item:</i>		<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
<i>Number</i>	<i>Type</i>			
143965AS	WP	0.57	0.97	1
143965AW	WP	0.57	0.98	1

**Table H-19. 2014–15 OCCT: Item-Level Classical Test Theory Statistics—  
Writing Grade 8**

<i>Item:</i>		<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
<i>Number</i>	<i>Type</i>			
143968AG	WP	0.61	0.97	1
143968AI	WP	0.62	0.96	1
143968AO	WP	0.62	0.97	1

<i>Item:</i>		<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
<i>Number</i>	<i>Type</i>			
143968AS	WP	0.61	0.98	1
143968AW	WP	0.62	0.98	1



# APPENDIX I—ITEM-LEVEL SCORE POINT DISTRIBUTIONS



**Table I-1. 2014–15 OCCT: Item-Level Score Distributions for Constructed–Response Items by Grade—Writing**

<i>Grade</i>	<i>Item Number</i>	<i>Total Possible Points</i>	<i>Percent of Students at Score Point</i>				
			<i>0</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
5	143965AG	4	0.31	7.31	33.24	23.63	1.26
	143965AI	4	0.31	8.15	31.34	24.96	1.53
	143965AO	4	0.31	7.86	32.71	24.01	1.33
	143965AS	4	0.31	7.34	32.78	23.96	1.32
	143965AW	4	0.31	7.40	32.86	23.65	1.50
8	143968AG	4	0.18	9.01	19.94	32.84	2.67
	143968AI	4	0.18	9.51	18.15	35.73	3.20
	143968AO	4	0.18	9.18	19.22	34.64	2.96
	143968AS	4	0.18	9.05	19.19	33.69	2.94
	143968AW	4	0.18	8.96	18.83	34.41	3.17

# APPENDIX J—DIFFERENTIAL ITEM FUNCTIONING RESULTS



**Table J-1. 2014–15 OCCT: Number of Items Classified as “Low” or “High” DIF  
Overall and by Grade and Group Favored—Mathematics**

Grade	Group		Item Type	Number of Items	Number “Low”			Number “High”		
	Reference	Focal			Total	Favoring		Total	Favoring	
						Reference	Focal		Reference	Focal
3	Male	Female	MC	50	1	0	1	0	0	0
	White/Caucasian	Black/African American	MC	50	7	5	2	0	0	0
		Hispanic or Latino	MC	50	2	2	0	0	0	0
		American Indian/Alaskan Native	MC	50	0	0	0	0	0	0
		Asian	MC	50	7	2	5	1	1	0
		Pacific Islander	MC	50	0	0	0	0	0	0
		Two or More Races	MC	50	0	0	0	0	0	0
		Non-IEP	IEP	MC	50	3	2	1	0	0
	Non-EconDis	EconDis	MC	50	0	0	0	0	0	0
	Non-ELL	ELL	MC	50	4	4	0	0	0	0
4	Male	Female	MC	50	1	1	0	1	0	1
	White/Caucasian	Black/African American	MC	50	8	8	0	0	0	0
		Hispanic or Latino	MC	50	4	4	0	0	0	0
		American Indian/Alaskan Native	MC	50	0	0	0	0	0	0
		Asian	MC	50	8	4	4	2	2	0
		Pacific Islander	MC	50	0	0	0	0	0	0
		Two or More Races	MC	50	0	0	0	0	0	0
		Non-IEP	IEP	MC	50	5	2	3	1	0
	Non-EconDis	EconDis	MC	50	1	1	0	0	0	0
	Non-ELL	ELL	MC	50	4	3	1	2	2	0
5	Male	Female	MC	50	6	6	0	1	1	0
	White/Caucasian	Black/African American	MC	50	6	6	0	0	0	0
		Hispanic or Latino	MC	50	2	2	0	0	0	0
		American Indian/Alaskan Native	MC	50	0	0	0	0	0	0
		Asian	MC	50	4	2	2	0	0	0
		Pacific Islander	MC	50	0	0	0	0	0	0
		Two or More Races	MC	50	0	0	0	0	0	0
	Non-IEP	IEP	MC	50	5	3	2	0	0	0

continued

Grade	Group		Item Type	Number of Items	Number "Low"			Number "High"			
	Reference	Focal			Total	Favoring		Total	Favoring		
						Reference	Focal		Reference	Focal	
5	Non-EconDis	EconDis	MC	50	0	0	0	0	0	0	
	Non-ELL	ELL	MC	50	3	3	0	2	2	0	
	Male	Female	MC	50	4	1	3	2	2	0	
6	White/Caucasian	Black/African American	MC	50	6	5	1	0	0	0	
		Hispanic or Latino	MC	50	0	0	0	0	0	0	
		American Indian/Alaskan Native	MC	50	0	0	0	0	0	0	
		Asian	MC	50	9	4	5	0	0	0	
		Pacific Islander	MC	50	0	0	0	0	0	0	
		Two or More Races	MC	50	0	0	0	0	0	0	
		Non-IEP	IEP	MC	50	4	3	1	0	0	0
		Non-EconDis	EconDis	MC	50	0	0	0	0	0	0
7	Non-ELL	ELL	MC	50	6	6	0	0	0	0	
	Male	Female	MC	50	5	3	2	0	0	0	
	White/Caucasian	Black/African American	MC	50	6	4	2	0	0	0	
		Hispanic or Latino	MC	50	4	4	0	0	0	0	
		American Indian/Alaskan Native	MC	50	0	0	0	0	0	0	
		Asian	MC	50	8	1	7	1	1	0	
		Pacific Islander	MC	50	0	0	0	0	0	0	
		Two or More Races	MC	50	0	0	0	0	0	0	
	Non-IEP	IEP	MC	50	6	5	1	0	0	0	
	Non-EconDis	EconDis	MC	50	0	0	0	0	0	0	
	Non-ELL	ELL	MC	50	8	6	2	1	1	0	
8	Male	Female	MC	50	8	4	4	0	0	0	
	White/Caucasian	Black/African American	MC	50	5	3	2	1	1	0	
		Hispanic or Latino	MC	50	2	2	0	0	0	0	
		American Indian/Alaskan Native	MC	50	0	0	0	0	0	0	
		Asian	MC	50	7	2	5	1	0	1	
		Pacific Islander	MC	50	0	0	0	0	0	0	
		Two or More Races	MC	50	0	0	0	0	0	0	
	Non-IEP	IEP	MC	50	7	5	2	1	1	0	
	Non-EconDis	EconDis	MC	50	0	0	0	0	0	0	
	Non-ELL	ELL	MC	50	7	6	1	2	2	0	

**Table J-2. 2014–15 OCCT: Number of Items Classified as “Low” or “High” DIF  
Overall and by Grade and Group Favored—Reading**

Grade	Group		Item Type	Number of Items	Number “Low”			Number “High”		
	Reference	Focal			Total	Favoring		Total	Favoring	
						Reference	Focal		Reference	Focal
3	Male	Female	MC	50	1	0	1	0	0	0
		Black/African American	MC	50	3	3	0	0	0	0
	White/Caucasian	Hispanic or Latino	MC	50	2	2	0	0	0	0
		American Indian/Alaskan Native	MC	50	0	0	0	0	0	0
		Asian	MC	50	5	1	4	0	0	0
		Pacific Islander	MC	50	0	0	0	0	0	0
		Two or More Races	MC	50	0	0	0	0	0	0
		Non-IEP	IEP	MC	50	1	1	0	0	0
	Non-EconDis	EconDis	MC	50	0	0	0	0	0	0
	Non-ELL	ELL	MC	50	6	6	0	0	0	0
4	Male	Female	MC	50	3	2	1	0	0	0
		Black/African American	MC	50	3	3	0	1	1	0
	White/Caucasian	Hispanic or Latino	MC	50	4	4	0	0	0	0
		American Indian/Alaskan Native	MC	50	0	0	0	0	0	0
		Asian	MC	50	7	3	4	1	0	1
		Pacific Islander	MC	50	0	0	0	0	0	0
		Two or More Races	MC	50	0	0	0	0	0	0
		Non-IEP	IEP	MC	50	0	0	0	0	0
	Non-EconDis	EconDis	MC	50	0	0	0	0	0	0
	Non-ELL	ELL	MC	50	7	7	0	1	1	0
5	Male	Female	MC	50	4	2	2	1	1	0
		Black/African American	MC	50	4	3	1	1	1	0
	White/Caucasian	Hispanic or Latino	MC	50	6	6	0	0	0	0
		American Indian/Alaskan Native	MC	50	0	0	0	0	0	0
		Asian	MC	50	7	4	3	0	0	0
		Pacific Islander	MC	50	0	0	0	0	0	0
		Two or More Races	MC	50	0	0	0	0	0	0
		Non-IEP	IEP	MC	50	2	2	0	0	0

continued



Grade	Group		Item Type	Number of Items	Number "Low"			Number "High"			
	Reference	Focal			Total	Favoring		Total	Favoring		
						Reference	Focal		Reference	Focal	
5	Non-EconDis	EconDis	MC	50	1	1	0	0	0	0	
	Non-ELL	ELL	MC	50	10	9	1	1	1	0	
	Male	Female	MC	50	3	2	1	0	0	0	
6	White/Caucasian	Black/African American	MC	50	6	6	0	0	0	0	
		Hispanic or Latino	MC	50	4	4	0	0	0	0	
		American Indian/Alaskan Native	MC	50	0	0	0	0	0	0	
		Asian	MC	50	8	5	3	0	0	0	
		Pacific Islander	MC	50	0	0	0	0	0	0	
		Two or More Races	MC	50	0	0	0	0	0	0	
		Non-IEP	IEP	MC	50	5	5	0	0	0	0
		Non-EconDis	EconDis	MC	50	0	0	0	0	0	0
7	Non-ELL	ELL	MC	50	10	10	0	1	1	0	
	Male	Female	MC	50	4	2	2	0	0	0	
	White/Caucasian	Black/African American	MC	50	2	2	0	1	1	0	
		Hispanic or Latino	MC	50	3	3	0	0	0	0	
		American Indian/Alaskan Native	MC	50	0	0	0	0	0	0	
		Asian	MC	50	9	3	6	1	1	0	
		Pacific Islander	MC	50	0	0	0	0	0	0	
		Two or More Races	MC	50	0	0	0	0	0	0	
	Non-IEP	IEP	MC	50	7	7	0	0	0	0	
	Non-EconDis	EconDis	MC	50	0	0	0	0	0	0	
	Non-ELL	ELL	MC	50	8	8	0	1	1	0	
8	Male	Female	MC	50	3	2	1	0	0	0	
	White/Caucasian	Black/African American	MC	50	3	3	0	1	1	0	
		Hispanic or Latino	MC	50	1	1	0	1	1	0	
		American Indian/Alaskan Native	MC	50	0	0	0	0	0	0	
		Asian	MC	50	7	2	5	2	1	1	
		Pacific Islander	MC	50	0	0	0	0	0	0	
		Two or More Races	MC	50	0	0	0	0	0	0	
	Non-IEP	IEP	MC	50	4	3	1	0	0	0	
	Non-EconDis	EconDis	MC	50	1	1	0	0	0	0	
	Non-ELL	ELL	MC	50	5	5	0	2	2	0	

**Table J-3. 2014–15 OCCT: Number of Items Classified as “Low” or “High” DIF  
Overall and by Grade and Group Favored—Science**

Grade	Group		Item Type	Number of Items	Number “Low”			Number “High”		
	Reference	Focal			Total	Favoring		Total	Favoring	
						Reference	Focal		Reference	Focal
5	Male	Female	MC	45	1	1	0	0	0	0
	White/Caucasian	Black/African American	MC	45	3	3	0	0	0	0
		Hispanic or Latino	MC	45	0	0	0	0	0	0
		American Indian/Alaskan Native	MC	45	0	0	0	0	0	0
		Asian	MC	45	1	0	1	0	0	0
		Pacific Islander	MC	45	0	0	0	0	0	0
		Two or More Races	MC	45	0	0	0	0	0	0
		Non-IEP	IEP	MC	45	2	2	0	0	0
	Non-EconDis	EconDis	MC	45	0	0	0	0	0	0
	Non-ELL	ELL	MC	45	5	5	0	0	0	0
8	Male	Female	MC	45	4	2	2	1	1	0
	White/Caucasian	Black/African American	MC	45	3	2	1	0	0	0
		Hispanic or Latino	MC	45	1	1	0	0	0	0
		American Indian/Alaskan Native	MC	45	0	0	0	0	0	0
		Asian	MC	45	8	3	5	0	0	0
		Pacific Islander	MC	45	0	0	0	0	0	0
		Two or More Races	MC	45	0	0	0	0	0	0
		Non-IEP	IEP	MC	45	5	5	0	0	0
	Non-EconDis	EconDis	MC	45	0	0	0	0	0	0
	Non-ELL	ELL	MC	45	8	8	0	0	0	0

**Table J-4. 2014–15 OCCT: Number of Items Classified as “Low” or “High” DIF  
Overall and by Grade and Group Favored—Social Studies**

Grade	Group		Item Type	Number of Items	Number “Low”			Number “High”		
	Reference	Focal			Total	Favoring		Total	Favoring	
						Reference	Focal		Reference	Focal
5	Male	Female	MC	50	3	2	1	0	0	0
	White/Caucasian	Black/African American	MC	50	3	3	0	0	0	0
		Hispanic or Latino	MC	50	0	0	0	0	0	0
		American Indian/Alaskan Native	MC	50	0	0	0	0	0	0
		Asian	MC	50	3	1	2	0	0	0
		Pacific Islander	MC	50	0	0	0	0	0	0
		Two or More Races	MC	50	0	0	0	0	0	0
		Non-IEP	IEP	MC	50	6	5	1	0	0
	Non-EconDis	EconDis	MC	50	0	0	0	0	0	0
	Non-ELL	ELL	MC	50	8	8	0	0	0	0
7	Male	Female	MC	49	4	3	1	0	0	0
	White/Caucasian	Black/African American	MC	49	7	7	0	0	0	0
		Hispanic or Latino	MC	49	3	2	1	1	0	1
		American Indian/Alaskan Native	MC	49	0	0	0	0	0	0
		Asian	MC	49	9	1	8	0	0	0
		Pacific Islander	MC	49	0	0	0	0	0	0
		Two or More Races	MC	49	0	0	0	0	0	0
		Non-IEP	IEP	MC	49	7	7	0	0	0
	Non-EconDis	EconDis	MC	49	0	0	0	0	0	0
	Non-ELL	ELL	MC	49	15	11	4	1	1	0
8	Male	Female	MC	50	3	3	0	0	0	0
	White/Caucasian	Black/African American	MC	50	2	2	0	0	0	0
		Hispanic or Latino	MC	50	1	0	1	0	0	0
		American Indian/Alaskan Native	MC	50	0	0	0	0	0	0
		Asian	MC	50	5	0	5	0	0	0
		Pacific Islander	MC	50	0	0	0	0	0	0
		Two or More Races	MC	50	0	0	0	0	0	0
		Non-IEP	IEP	MC	50	5	4	1	0	0
	Non-EconDis	EconDis	MC	50	0	0	0	0	0	0
	Non-ELL	ELL	MC	50	5	4	1	1	0	1

**Table J-5. 2014–15 OCCT: Number of Items Classified as “Low” or “High” DIF Overall and by Grade and Group Favored—Writing**

Grade	Group		Item Type	Number of Items	Number “Low”			Number “High”		
	Reference	Focal			Total	Favoring		Total	Favoring	
						Reference	Focal		Reference	Focal
5	Male	Female	OR	5	0	0	0	0	0	0
	White/Caucasian	Black/African American	OR	5	0	0	0	0	0	0
		Hispanic or Latino	OR	5	0	0	0	0	0	0
		American Indian/Alaskan Native	OR	5	0	0	0	0	0	0
		Asian	OR	5	0	0	0	0	0	0
		Pacific Islander	OR	5	0	0	0	0	0	0
		Two or More Races	OR	5	0	0	0	0	0	0
		Non-IEP	IEP	OR	5	0	0	0	0	0
	Non-EconDis	EconDis	OR	5	0	0	0	0	0	0
	Non-ELL	ELL	OR	5	0	0	0	0	0	0
8	Male	Female	OR	5	0	0	0	0	0	0
	White/Caucasian	Black/African American	OR	5	0	0	0	0	0	0
		Hispanic or Latino	OR	5	0	0	0	0	0	0
		American Indian/Alaskan Native	OR	5	0	0	0	0	0	0
		Asian	OR	5	0	0	0	0	0	0
		Pacific Islander	OR	5	0	0	0	0	0	0
		Two or More Races	OR	5	0	0	0	0	0	0
		Non-IEP	IEP	OR	5	0	0	0	0	0
	Non-EconDis	EconDis	OR	5	0	0	0	0	0	0
	Non-ELL	ELL	OR	5	0	0	0	0	0	0

# APPENDIX K—ITEM RESPONSE THEORY PARAMETERS



**Table K-1. 2014–15 OCCT: IRT Parameters for Dichotomous Items  
Social Studies Grade 5**

<i>IREF</i>	<i>Parameters and Measures of Standard Error</i>						<i>IREF</i>	<i>Parameters and Measures of Standard Error</i>					
	<i>a</i>	<i>SE (a)</i>	<i>b</i>	<i>SE (b)</i>	<i>c</i>	<i>SE (c)</i>		<i>a</i>	<i>SE (a)</i>	<i>b</i>	<i>SE (b)</i>	<i>c</i>	<i>SE (c)</i>
151789A	0.00818	0.00033	682.25736	5.21943	0.06948	0.02836	155176A	0.02226	0.00136	786.24418	1.79864	0.38689	0.00803
151745A	0.01266	0.00071	687.21898	6.00792	0.40503	0.03117	151797A	0.01529	0.00055	662.67110	3.41236	0.14333	0.02892
151746A	0.00895	0.00048	649.49814	9.87324	0.19427	0.05613	155790A	0.01244	0.00047	669.93674	4.11531	0.11747	0.03045
151748A	0.00428	0.00076	827.46291	20.24645	0.27759	0.05640	151801A	0.00767	0.00046	723.50380	6.82110	0.11425	0.03368
155781A	0.01358	0.00059	685.29626	4.17916	0.23864	0.02841	155792A	0.01234	0.00108	829.81150	3.82196	0.25414	0.01073
151753A	0.01666	0.00077	747.21200	2.08476	0.27829	0.01288	151803A	0.01032	0.00074	777.21604	3.76714	0.25701	0.01882
155783A	0.01651	0.00062	722.39968	2.02874	0.17889	0.01474	151812A	0.01327	0.00057	696.81454	3.75088	0.20713	0.02524
151761A	0.01999	0.00079	722.29849	1.85225	0.28052	0.01344	151814A	0.01393	0.00071	775.39029	2.03838	0.17310	0.01154
151764A	0.01529	0.00064	709.04481	2.87445	0.24841	0.01958	151818A	0.01338	0.00055	717.27241	2.81723	0.15305	0.01915
156595A	0.01458	0.00096	812.71900	2.51484	0.19883	0.00894	151820A	0.00874	0.00024	677.38609	1.63480	0.00000	0.00000
151771A	0.00959	0.00040	666.73400	5.73204	0.10228	0.03578	151823A	0.00919	0.00041	652.67557	7.31443	0.12788	0.04470
151777A	0.01385	0.00068	766.33806	2.12090	0.18221	0.01257	151826A	0.01652	0.00065	709.34659	2.42690	0.22448	0.01762
151779A	0.01254	0.00059	720.78175	3.43826	0.20493	0.02141	155793A	0.01546	0.00076	747.05599	2.38293	0.29282	0.01410
155150A	0.01831	0.00101	733.98182	2.73892	0.49126	0.01366	155795A	0.01085	0.00078	799.73699	3.09311	0.20963	0.01460
151784A	0.01713	0.00066	741.41491	1.68781	0.17067	0.01175	151832A	0.01496	0.00052	697.24703	2.47629	0.11508	0.01905
151786A	0.00956	0.00044	669.59580	6.51871	0.12947	0.03974	151834A	0.01222	0.00067	744.32731	3.38043	0.26068	0.01887
155153A	0.00876	0.00033	680.65991	4.56949	0.06430	0.02614	151836A	0.01604	0.00048	689.92899	1.99923	0.06997	0.01618
154691A	0.01654	0.00072	774.18979	1.56854	0.14315	0.00897	151837A	0.01181	0.00057	706.46792	4.34902	0.21229	0.02656
151840A	0.01082	0.00043	669.06874	4.92729	0.10833	0.03336	155798A	0.00767	0.00053	743.64905	6.69521	0.13952	0.03239
155788A	0.01944	0.00097	771.55026	1.67214	0.28524	0.00931	155800A	0.01513	0.00081	741.52936	2.85698	0.36489	0.01552
155163A	0.01710	0.00072	726.15900	2.22872	0.27279	0.01498	151842A	0.01643	0.00062	717.07364	2.15283	0.18637	0.01576
155165A	0.00877	0.00057	728.85575	6.43378	0.19397	0.03222	151844A	0.01717	0.00080	754.90411	1.90104	0.26478	0.01165
155169A	0.01514	0.00093	787.68200	2.27149	0.28598	0.01079	151845A	0.00981	0.00073	739.97889	6.25970	0.35787	0.02713
155171A	0.01193	0.00060	696.66756	4.98331	0.25840	0.02966							
155785A	0.01630	0.00084	756.04497	2.23475	0.32247	0.01261							
151791A	0.02085	0.00085	754.62883	1.42096	0.23125	0.00942							
151793A	0.01261	0.00063	756.28772	2.52147	0.17527	0.01523							

**Table K-2. 2014–15 OCCT: IRT Parameters for Dichotomous Items  
Geography Grade 7**

NIA ID	Parameters and Measures of Standard Error						NIA ID	Parameters and Measures of Standard Error					
	a	SE (a)	b	SE (b)	c	SE (c)		a	SE (a)	b	SE (b)	c	SE (c)
151747A	0.01206	0.00025	706.75350	1.54615	0.27145	0.00728	155521A	0.01022	0.00036	816.84040	1.80880	0.27924	0.00499
151751A	0.01169	0.00031	768.89530	1.42460	0.29853	0.00535	155524A	0.00877	0.00037	794.30350	2.51515	0.42757	0.00700
151754A	0.00781	0.00021	624.45310	5.38730	0.28180	0.02234	155529A	0.00699	0.00016	648.97650	4.11570	0.09788	0.01837
151756A	0.01315	0.00039	776.20960	1.44075	0.39044	0.00478	155533A	0.00571	0.00032	821.57750	3.91765	0.29444	0.01202
151759A	0.00640	0.00018	739.37400	2.92400	0.09044	0.01181	151822A	0.01490	0.00024	651.21880	1.25630	0.16841	0.00819
151762A	0.01233	0.00028	752.99350	1.21210	0.23192	0.00521	151825A	0.00664	0.00024	771.10790	2.92995	0.19754	0.01085
151765A	0.00921	0.00026	712.69500	2.70895	0.35774	0.00990	151851A	0.01322	0.00040	810.32260	1.36340	0.26757	0.00385
151766A	0.00824	0.00028	797.79020	2.03235	0.24037	0.00703	151853A	0.00920	0.00019	719.85880	1.67365	0.11703	0.00787
151769A	0.01098	0.00022	687.77300	1.82580	0.22824	0.00894	151854A	0.01313	0.00024	722.40630	1.09395	0.18056	0.00550
151770A	0.00733	0.00025	750.79200	3.09400	0.28535	0.01078	151860A	0.00753	0.00020	738.59540	2.43865	0.15517	0.01005
151773A	0.00766	0.00018	631.59570	4.40300	0.16109	0.02036	155539A	0.00335	0.00007	673.07740	1.69830	0.00000	0.00000
151775A	0.00728	0.00017	720.45640	2.36300	0.07757	0.01032	156376A	0.00987	0.00013	620.76670	1.49855	0.02186	0.00819
151778A	0.01371	0.00029	733.96710	1.19170	0.27762	0.00542	151869A	0.00609	0.00039	835.07720	4.15310	0.40308	0.01044
151781A	0.01200	0.00024	744.03370	1.16110	0.18064	0.00532	151871A	0.00991	0.00021	669.80230	2.37745	0.22022	0.01148
151783A	0.00526	0.00015	691.41530	5.04560	0.06264	0.01827	151876A	0.01153	0.00028	741.78370	1.53085	0.30259	0.00628
151787A	0.01117	0.00035	801.28290	1.55805	0.28940	0.00483	156377A	0.01152	0.00021	707.14880	1.34810	0.16040	0.00686
151792A	0.01134	0.00018	639.68510	1.75695	0.09640	0.01069	151883A	0.01223	0.00026	735.61190	1.29795	0.24317	0.00586
151795A	0.00343	0.00007	642.27420	1.85980	0.00000	0.00000	151887A	0.00988	0.00028	762.87310	1.80795	0.30162	0.00673
151798A	0.01008	0.00024	620.39180	3.70260	0.33125	0.01754	151890A	0.00911	0.00025	719.61660	2.51600	0.31988	0.00955
151800A	0.01351	0.00024	611.94110	2.04000	0.21373	0.01360	151894A	0.00472	0.00007	651.09810	1.32430	0.00000	0.00000
151804A	0.00746	0.00025	832.70740	2.07655	0.10531	0.00583	151897A	0.00645	0.00021	669.52010	5.79955	0.23806	0.02062
151805A	0.01089	0.00046	855.78740	2.40890	0.25044	0.00393	155552A	0.01031	0.00030	756.95370	1.81560	0.33312	0.00667
155494A	0.00745	0.00019	692.11230	3.20875	0.15166	0.01358							
155510A	0.01397	0.00058	838.27830	1.87085	0.35868	0.00354							
151806A	0.00932	0.00020	712.20630	1.83090	0.14838	0.00855							
151809A	0.00306	0.00007	674.22230	1.85045	0.00000	0.00000							
151815A	0.01203	0.00038	839.53290	1.67705	0.16263	0.00329							



**Table K-3. 2014–15 OCCT: IRT Parameters for Dichotomous Items  
U.S. History Grade 8**

IREF	Parameters and Measures of Standard Error						IREF	Parameters and Measures of Standard Error					
	a	SE (a)	b	SE (b)	c	SE (c)		a	SE (a)	b	SE (b)	c	SE (c)
151864A	0.01343	0.00059	562.29881	6.96923	0.15628	0.06325	155959A	0.01261	0.00069	643.85032	7.12789	0.33303	0.04360
155952A	0.01089	0.00057	617.88595	9.09907	0.23766	0.05970	151939A	0.00983	0.00048	594.94411	10.01151	0.18874	0.06654
151872A	0.00990	0.00042	644.27814	5.84195	0.10399	0.03716	151942A	0.01287	0.00079	756.61612	2.79349	0.22995	0.01513
155956A	0.01102	0.00050	678.36124	4.57145	0.12186	0.02927	151945A	0.01015	0.00044	650.85412	5.52834	0.10437	0.03543
151875A	0.00944	0.00046	559.08181	10.91963	0.18268	0.07411	151947A	0.00483	0.00035	682.14619	14.17799	0.11227	0.04784
151880A	0.00899	0.00074	756.72231	5.29190	0.23726	0.02532	151950A	0.02094	0.00089	702.61556	2.01996	0.29804	0.01478
151882A	0.01769	0.00094	723.90415	2.52989	0.36656	0.01465	151951A	0.02098	0.00086	680.69419	2.29406	0.28983	0.01827
151885A	0.01256	0.00071	697.69531	4.68381	0.31089	0.02595	151953A	0.01296	0.00064	709.26747	3.38430	0.20331	0.02112
151886A	0.00424	0.00036	653.45438	23.07519	0.16195	0.06695	151954A	0.02110	0.00087	676.49377	2.36691	0.29463	0.01908
151891A	0.00920	0.00067	714.46121	7.03035	0.26452	0.03313	151956A	0.01436	0.00082	750.14448	2.51754	0.24958	0.01407
151893A	0.01606	0.00120	745.28287	3.38985	0.51761	0.01366	151958A	0.01327	0.00066	714.10871	3.18304	0.20952	0.01981
151896A	0.01712	0.00131	774.07963	2.71200	0.42501	0.01080	151960A	0.01368	0.00060	686.96767	3.44418	0.17933	0.02365
151899A	0.01193	0.00054	648.71007	5.48142	0.16272	0.03822	151961A	0.01718	0.00097	710.18238	3.17501	0.43982	0.01700
151902A	0.00607	0.00067	810.12095	6.90811	0.11720	0.02967	151962A	0.01076	0.00076	748.92954	4.08005	0.25821	0.02074
151904A	0.01802	0.00339	871.23644	10.16647	0.33382	0.00664	151966A	0.01794	0.00090	725.04501	2.30888	0.32486	0.01412
151906A	0.01216	0.00054	627.64990	6.17594	0.16941	0.04580	151969A	0.01835	0.00091	737.49874	1.98539	0.27847	0.01221
151910A	0.02149	0.00167	771.77754	2.40518	0.49589	0.00908	151972A	0.00431	0.00021	679.94906	3.09723	0.00000	0.00000
151912A	0.00681	0.00040	640.68210	11.54130	0.13705	0.05341	151973A	0.00597	0.00023	665.70563	2.48050	0.00000	0.00000
151913A	0.02334	0.00093	656.44049	2.36938	0.27707	0.02198	151975A	0.00505	0.00044	724.28937	13.90512	0.12661	0.04810
151916A	0.01450	0.00117	761.76294	3.46085	0.46737	0.01376	151976A	0.01855	0.00089	718.92463	2.24776	0.31830	0.01436
155380A	0.00819	0.00047	631.26138	11.33202	0.18509	0.05994	151977A	0.01954	0.00065	670.83393	1.93291	0.11320	0.01710
151918A	0.00842	0.00039	683.34693	5.24066	0.07503	0.02830	151978A	0.02049	0.00089	680.34107	2.55149	0.33559	0.01910
151920A	0.01492	0.00055	622.89695	4.03066	0.11714	0.03558	151979A	0.01357	0.00094	784.33561	2.68608	0.22441	0.01180
151923A	0.01685	0.00078	646.01042	4.34365	0.31954	0.03287							
151926A	0.01470	0.00064	685.12181	3.27070	0.20692	0.02294							
151928A	0.01332	0.00071	676.26905	5.03693	0.32545	0.02976							
151935A	0.02135	0.00076	623.26304	2.62002	0.12007	0.02821							

**Table K-4. 2014–15 OCCT: IRT Parameters for Dichotomous Items  
Science Grade 5**

IREF	Parameters and Measures of Standard Error						IREF	Parameters and Measures of Standard Error					
	a	SE (a)	b	SE (b)	c	SE (c)		a	SE (a)	b	SE (b)	c	SE (c)
149905A	0.00670	0.00033	557.39270	14.34062	0.17093	0.06981	149956A	0.01298	0.00057	673.63396	3.96138	0.26091	0.02394
149910A	0.01124	0.00047	555.84571	8.69793	0.18534	0.06735	154270A	0.00840	0.00053	726.26659	5.57854	0.19145	0.02626
149911A	0.00619	0.00041	647.80012	14.51370	0.18281	0.05748	154274A	0.01757	0.00075	730.65832	1.85840	0.26945	0.01119
154260A	0.01374	0.00057	703.14383	2.71309	0.21218	0.01679	149947A	0.01866	0.00068	605.19189	3.46086	0.17949	0.03326
149907A	0.01201	0.00050	664.77966	4.26209	0.19223	0.02675	154278A	0.00963	0.00035	615.10737	5.46160	0.08901	0.03434
149920A	0.00559	0.00043	704.29790	12.57244	0.14790	0.04590	149961A	0.01397	0.00050	587.97779	4.98380	0.13578	0.04305
149917A	0.01015	0.00046	643.66900	6.40116	0.17921	0.03787	154283A	0.00819	0.00044	714.89165	5.05865	0.11026	0.02535
149922A	0.00653	0.00028	569.08706	9.55797	0.10005	0.04484	149963A	0.01231	0.00038	600.74335	3.67337	0.06632	0.02695
149926A	0.01209	0.00057	694.78270	3.90391	0.26522	0.02165	149962A	0.01653	0.00055	632.22590	2.97638	0.14257	0.02514
149930A	0.01594	0.00059	682.74019	2.46116	0.21236	0.01718	149965A	0.00926	0.00056	736.90511	4.43383	0.20845	0.02162
149931A	0.01153	0.00043	688.21515	3.03920	0.09637	0.01908	154286A	0.01692	0.00060	648.29395	2.85610	0.20172	0.02260
154261A	0.00650	0.00021	604.59447	3.19757	0.00000	0.00000	149967A	0.01214	0.00060	738.20419	2.71643	0.20799	0.01487
149933A	0.01137	0.00043	565.72042	6.69385	0.13209	0.05199	149964A	0.00879	0.00035	641.68029	5.68479	0.08929	0.03221
149934A	0.01007	0.00036	634.49929	4.62762	0.08161	0.02914	154287A	0.01564	0.00058	650.79387	3.21628	0.21425	0.02396
149936A	0.00892	0.00071	761.36102	5.09273	0.31872	0.02092	149980A	0.01246	0.00047	637.35271	4.37837	0.14481	0.03096
149937A	0.01089	0.00042	636.78537	4.98915	0.11983	0.03282	149981A	0.01875	0.00068	641.03543	2.81600	0.24226	0.02331
149932A	0.01497	0.00064	726.12960	2.14976	0.22318	0.01294	149982A	0.01782	0.00081	653.69274	3.65131	0.43412	0.02252
154263A	0.01341	0.00056	696.53819	3.00645	0.22352	0.01842	154290A	0.01526	0.00052	632.40633	3.33590	0.14334	0.02695
149939A	0.01188	0.00052	677.99896	4.07832	0.20820	0.02444	149984A	0.01297	0.00055	668.29264	3.98210	0.24085	0.02484
154265A	0.01755	0.00069	698.37588	2.18116	0.27870	0.01447	149985A	0.01587	0.00061	683.46323	2.63424	0.24986	0.01771
149941A	0.01484	0.00055	611.86770	4.38772	0.17465	0.03631							
154266A	0.02702	0.00111	755.44100	1.12399	0.21495	0.00657							
149943A	0.00958	0.00038	603.49788	6.92440	0.12206	0.04424							
149945A	0.01388	0.00054	642.32515	4.06964	0.20592	0.02905							
149989A	0.00939	0.00034	588.92737	6.33567	0.09795	0.04051							

**Table K-5. 2014–15 OCCT: IRT Parameters for Dichotomous Items  
Science Grade 8**

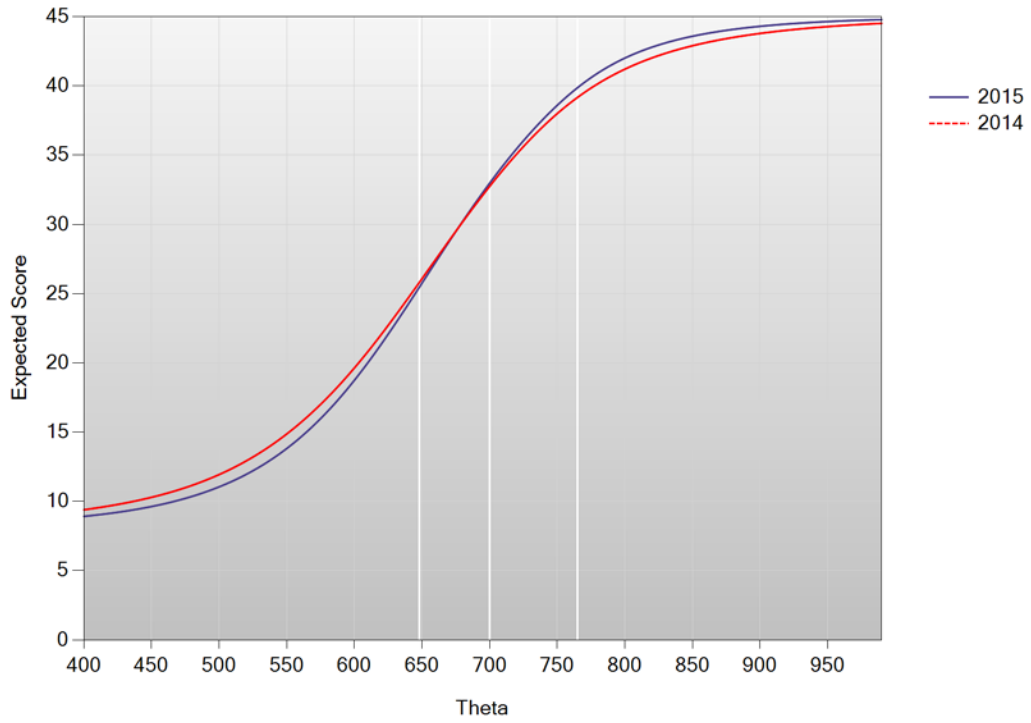
IREF	Parameters and Measures of Standard Error						IREF	Parameters and Measures of Standard Error					
	a	SE (a)	b	SE (b)	c	SE (c)		a	SE (a)	b	SE (b)	c	SE (c)
154135A	0.01017	0.00057	587.72575	11.47409	0.20572	0.08365	154157A	0.00918	0.00048	643.10679	7.81658	0.11755	0.04997
149793A	0.02392	0.00129	731.73678	1.65446	0.30968	0.01345	154162A	0.02252	0.00096	682.04536	2.39658	0.24024	0.02454
149803A	0.02151	0.00121	698.38479	2.94671	0.42553	0.02205	154180A	0.01440	0.00081	698.64760	4.04560	0.20129	0.03122
154137A	0.01983	0.00124	778.92632	1.90229	0.09771	0.00795	149883A	0.00696	0.00043	616.15113	11.85673	0.13332	0.05917
154140A	0.01436	0.00074	703.81251	3.33161	0.13813	0.02698	149889A	0.01039	0.00081	719.01447	6.05500	0.17549	0.03785
149809A	0.01933	0.00093	622.69816	5.58295	0.24259	0.06424	154184A	0.01117	0.00037	641.16773	2.18280	0.00000	0.00000
154142A	0.00843	0.00048	653.48018	8.39485	0.11572	0.04918	154188A	0.01669	0.00118	753.30104	2.27902	0.25138	0.01582
149814A	0.00964	0.00066	692.18726	7.53108	0.14592	0.04624	154191A	0.01029	0.00036	642.30203	2.30989	0.00000	0.00000
149821A	0.01661	0.00070	618.19594	4.94159	0.13951	0.05410	149901A	0.00791	0.00056	697.21782	8.48517	0.11645	0.04532
149823A	0.01329	0.00060	631.48518	5.86936	0.13578	0.05258	149900A	0.01605	0.00060	645.20607	3.43283	0.08825	0.03409
149831A	0.00922	0.00058	653.14566	9.98758	0.16503	0.06143	154193A	0.03145	0.00173	599.82940	3.91124	0.20242	0.06616
154143A	0.01616	0.00143	772.83274	2.66257	0.28017	0.01444	154190A	0.02757	0.00125	609.42617	3.38245	0.14761	0.05206
149825A	0.01070	0.00051	594.11482	7.25148	0.11966	0.05380	154187A	0.01428	0.00078	675.27501	5.20576	0.21517	0.04139
154144A	0.01096	0.00078	683.96898	8.03355	0.22745	0.05063	154186A	0.01793	0.00143	763.27091	2.31352	0.30729	0.01384
154145A	0.02294	0.00099	660.88145	2.96441	0.24560	0.03298	149822A	0.01770	0.00062	669.27539	2.37343	0.07053	0.02357
154146A	0.01853	0.00124	764.57542	1.88867	0.19335	0.01189	149904A	0.02449	0.00101	713.45149	1.45656	0.19259	0.01445
154148A	0.01895	0.00081	682.86374	2.71885	0.16958	0.02659	154181A	0.01962	0.00071	634.81861	2.98302	0.09065	0.03443
149857A	0.00865	0.00047	679.95561	6.31554	0.08808	0.03727	149906A	0.03276	0.00124	688.10490	1.35216	0.23743	0.01657
149862A	0.01555	0.00103	751.05061	2.24135	0.18403	0.01654	149913A	0.01571	0.00078	667.53423	4.56440	0.19808	0.04039
154149A	0.01881	0.00097	683.21233	3.52770	0.30888	0.02986	154178A	0.01420	0.00057	654.26452	3.88492	0.09175	0.03492
154150A	0.01715	0.00145	765.98613	2.50461	0.31696	0.01437							
149871A	0.02464	0.00119	651.73903	3.52634	0.35356	0.03778							
154153A	0.01202	0.00064	657.22439	6.63418	0.15686	0.05105							
149866A	0.02512	0.00120	738.94060	1.25911	0.19808	0.01081							
154155A	0.02046	0.00094	713.22409	1.91636	0.19810	0.01752							

# APPENDIX L—TEST CHARACTERISTIC CURVES AND TEST INFORMATION FUNCTION PLOTS



**Figure L-1. 2014–15 OCCT: Science Grade 5**  
**Top: Test Characteristic Curve      Bottom: Test Information Function**

**Test Characteristic Curve: Science Grade 5**



**Test Information Function: Science Grade 5**

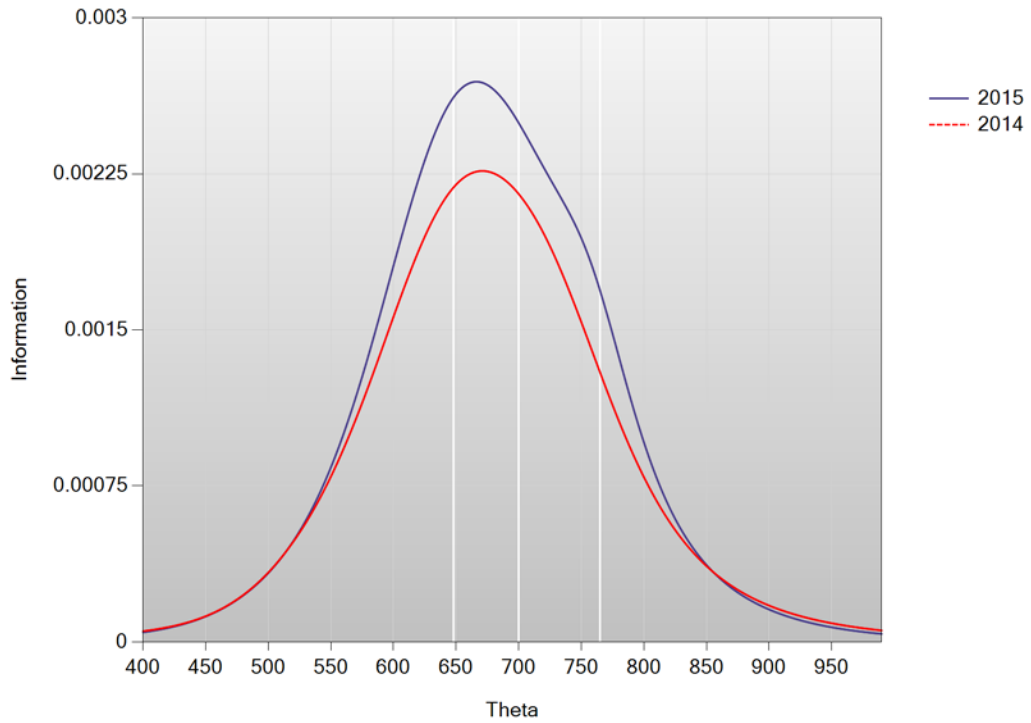
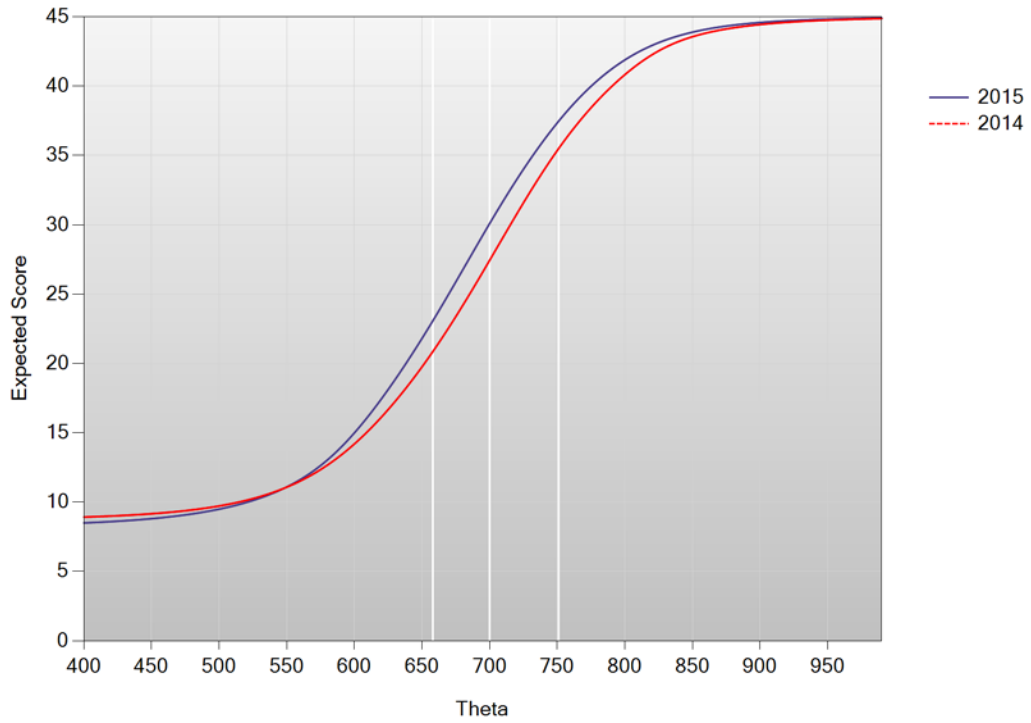


Figure L-2. 2014–15 OCCT: Science Grade 8  
Top: Test Characteristic Curve      Bottom: Test Information Function

Test Characteristic Curve: Science Grade 8



Test Information Function: Science Grade 8

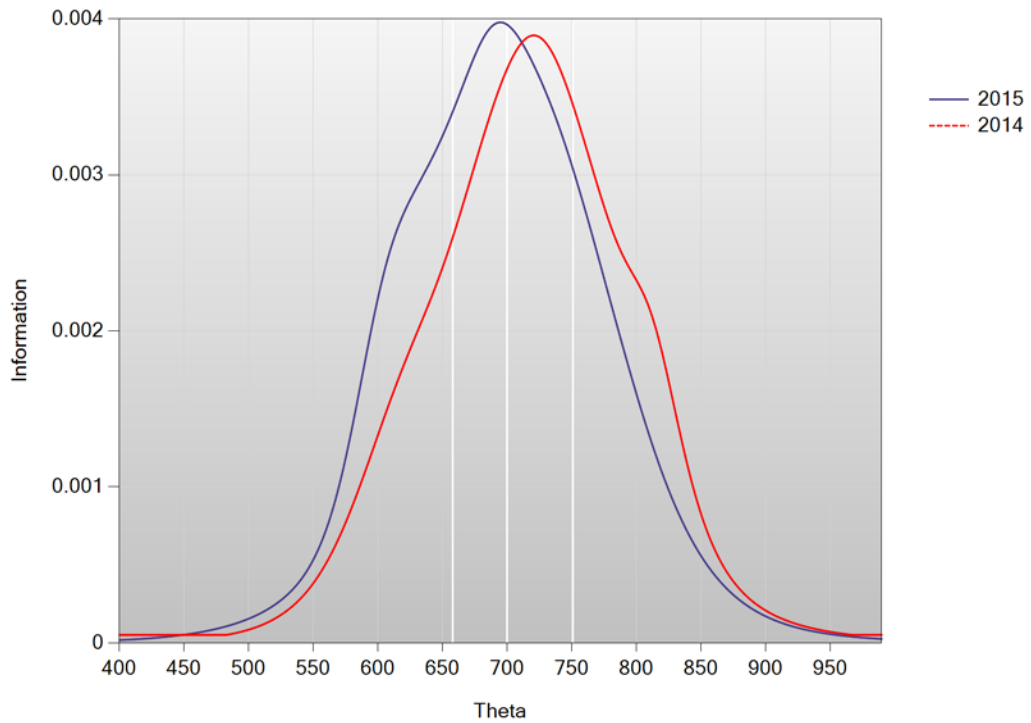
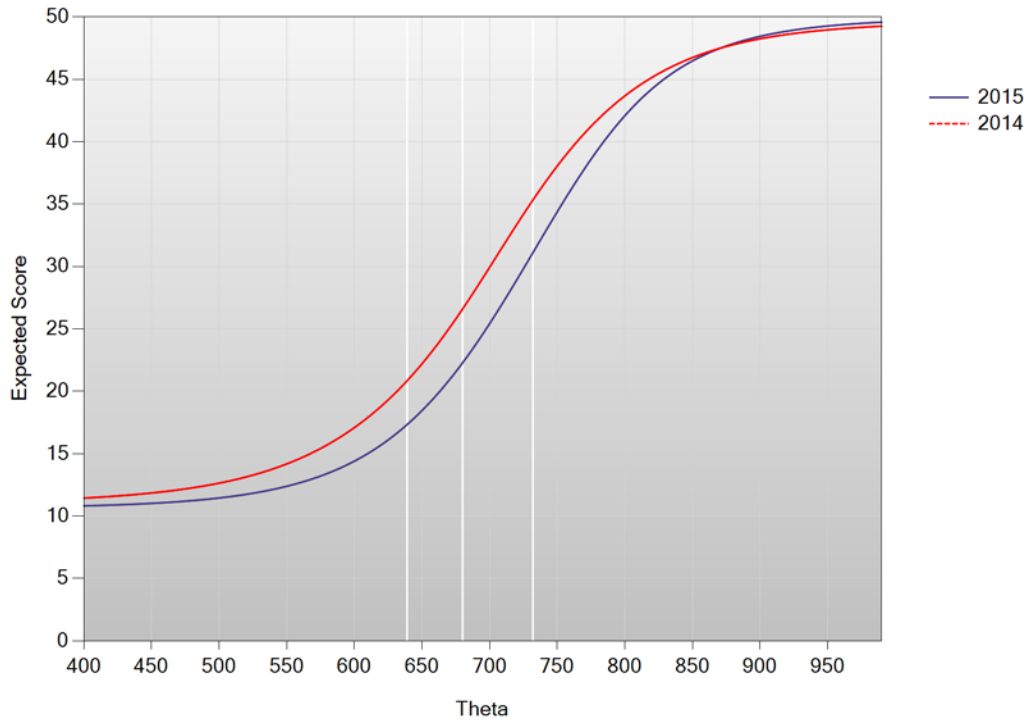


Figure L-3. 2014–15 OCCT: Social Studies Grade 5  
Top: Test Characteristic Curve      Bottom: Test Information Function

Test Characteristic Curve: Social Studies Grade 5



Test Information Function: Social Studies Grade 5

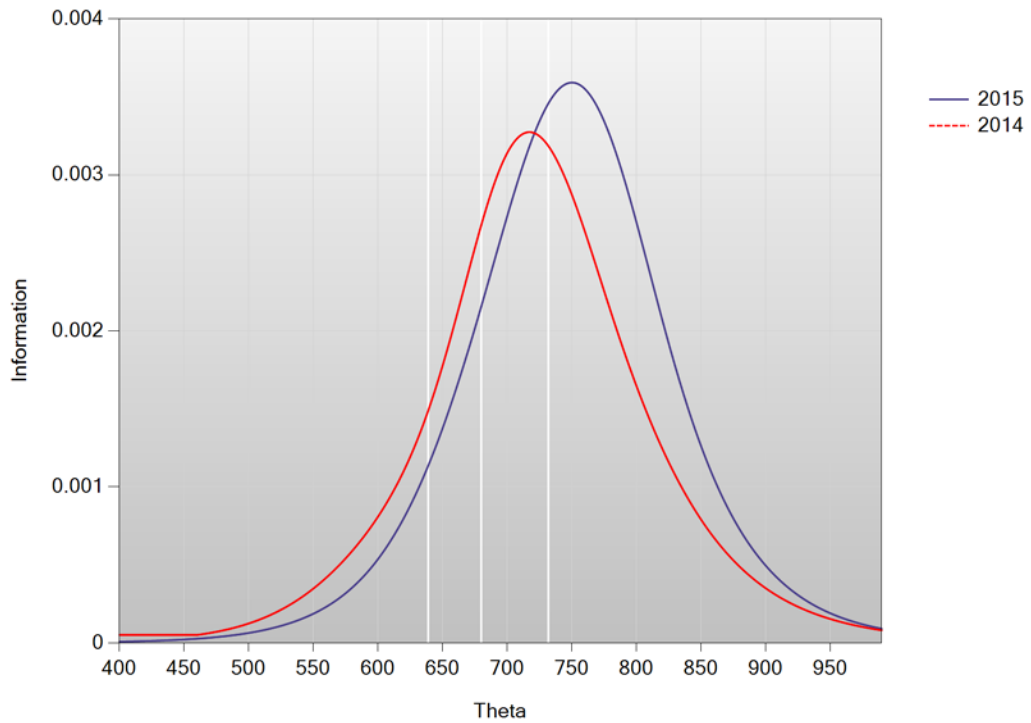
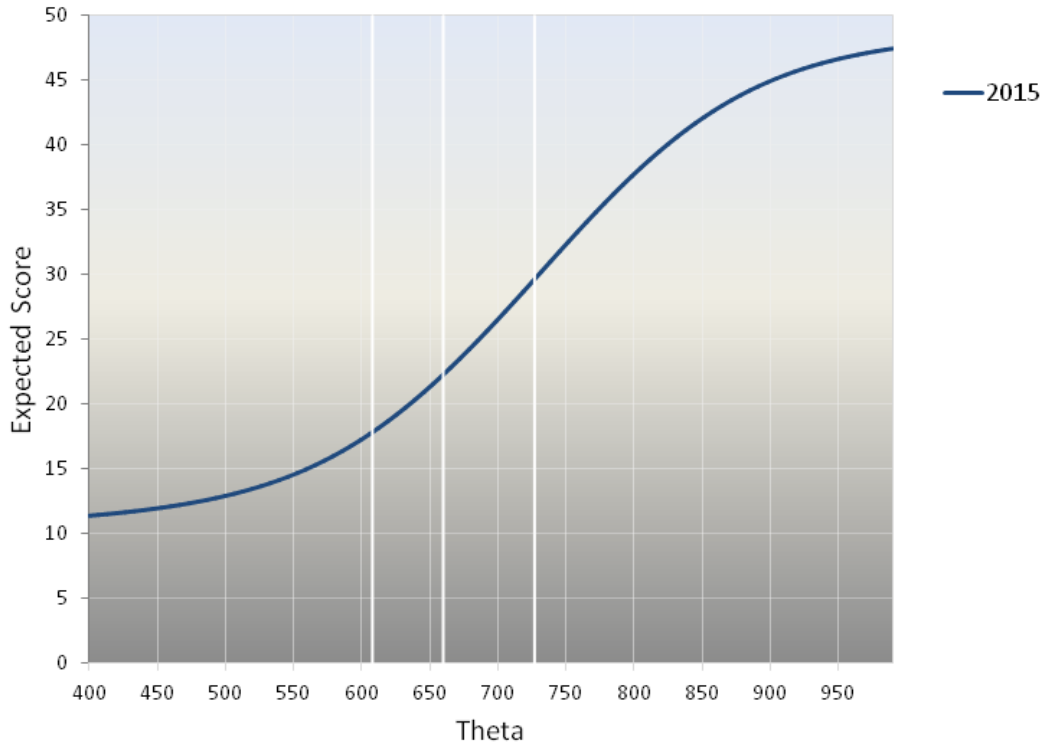




Figure L-4. 2014–15 OCCT: Geography Grade 7  
Top: Test Characteristic Curve      Bottom: Test Information Function

### Test Characteristic Curve: Social Studies Grade 7



### Test Information Function: Social Studies Grade 7

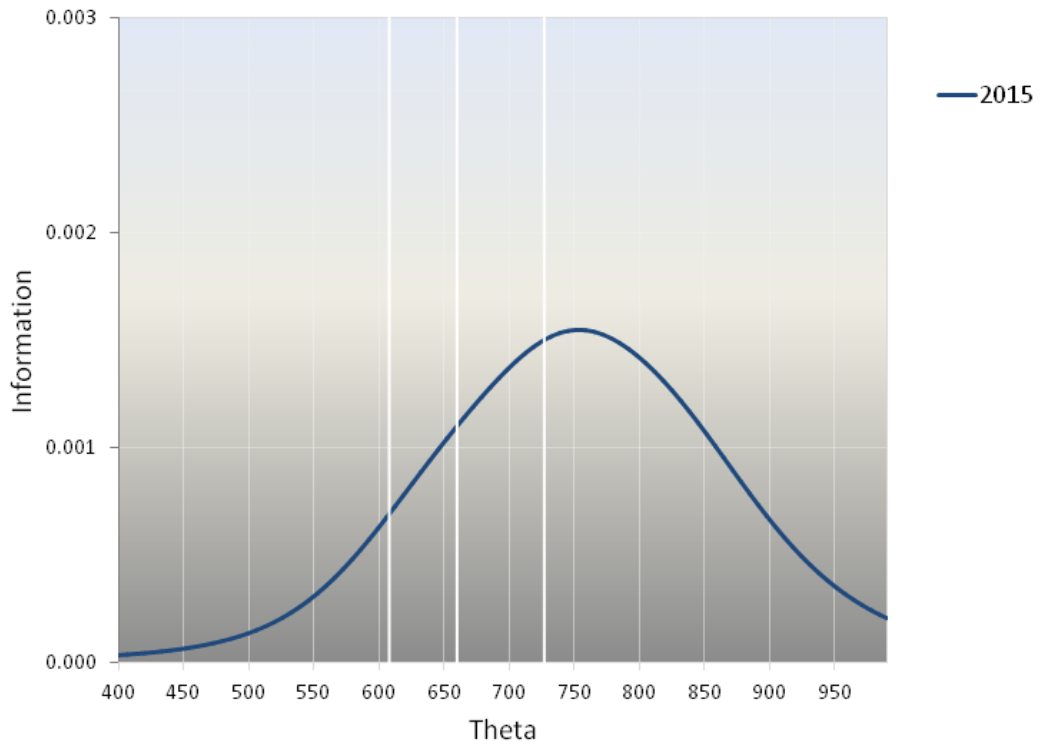
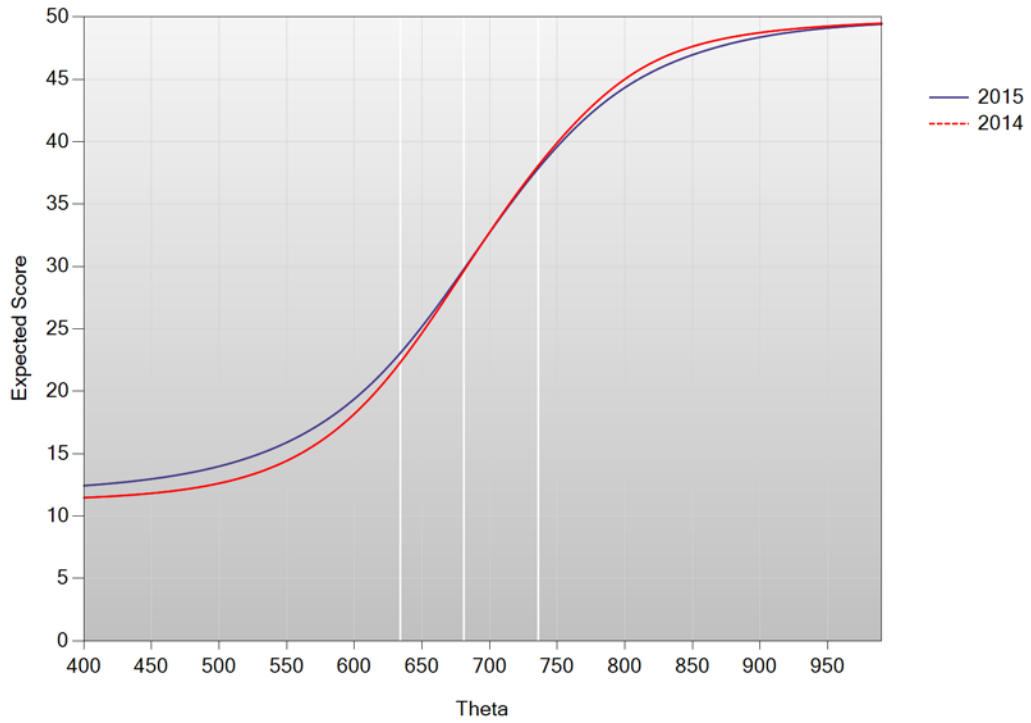
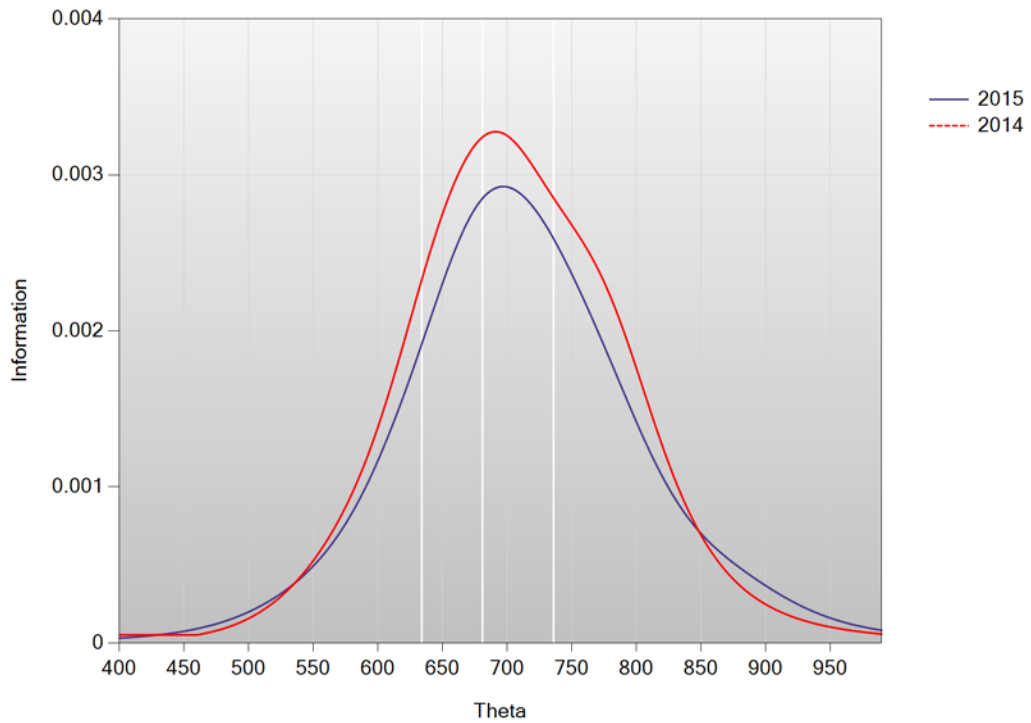


Figure L-5. 2014–15 OCCT: U.S. History Grade 8  
Top: Test Characteristic Curve      Bottom: Test Information Function

Test Characteristic Curve: Social Studies Grade 8



Test Information Function: Social Studies Grade 8



# APPENDIX M—RAW TO SCALED SCORE LOOK-UP TABLES



**Table M-1. 2014–15 OCCT: Raw to Scaled Score Correspondence—  
Mathematics Grade 3**

<i>Raw Score</i>	<i>2015</i>			<i>2014</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
0	400	125	1	400	147	1
1	400	125	1	400	147	1
2	400	125	1	400	147	1
3	400	125	1	400	147	1
4	400	125	1	400	147	1
5	400	125	1	400	147	1
6	400	125	1	400	147	1
7	400	125	1	400	147	1
8	400	125	1	400	147	1
9	400	125	1	400	147	1
10	447	80	1	401	146	1
11	483	59	1	446	100	1
12	508	48	1	476	73	1
13	527	41	1	497	58	1
14	543	36	1	515	50	1
15	557	33	1	530	44	1
16	569	30	1	543	39	1
17	579	28	1	555	36	1
18	589	26	1	566	34	1
19	599	25	1	576	32	1
20	607	24	1	586	30	1
21	615	23	1	595	29	1
22	623	22	1	603	28	1
23	631	22	1	611	27	1
24	638	21	2	620	26	1
25	645	21	2	627	25	1
26	652	20	2	635	25	2
27	659	20	2	643	24	2
28	665	20	2	650	24	2
29	672	20	2	658	24	2
30	679	19	2	665	23	2
31	685	19	2	672	23	2
32	692	19	2	680	23	2
33	698	19	2	688	23	2
34	705	19	3	695	23	2
35	712	19	3	703	23	3
36	719	20	3	711	24	3
37	726	20	3	720	24	3
38	734	20	3	729	24	3
39	742	20	3	738	25	3
40	750	21	3	747	25	3
41	759	22	3	758	26	3
42	768	22	3	769	27	3
43	779	23	3	780	28	3
44	790	25	3	794	30	3

continued

<i>Raw Score</i>	<i>2015</i>			<i>2014</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
45	804	27	4	809	32	4
46	819	30	4	827	36	4
47	839	34	4	850	42	4
48	866	41	4	882	53	4
49	910	57	4	940	82	4
50	990	112	4	990	115	4

**Table M-2. 2014–15 OCCT: Raw to Scaled Score Correspondence—  
Mathematics Grade 4**

<i>Raw Score</i>	<i>2015</i>			<i>2014</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
0	400	141	1	400	163	1
1	400	141	1	400	163	1
2	400	141	1	400	163	1
3	400	141	1	400	163	1
4	400	141	1	400	163	1
5	400	141	1	400	163	1
6	400	141	1	400	163	1
7	400	141	1	400	163	1
8	400	141	1	400	163	1
9	400	141	1	400	163	1
10	400	141	1	400	163	1
11	435	128	1	423	140	1
12	483	76	1	465	97	1
13	512	58	1	493	71	1
14	534	48	1	514	58	1
15	551	42	1	531	49	1
16	566	38	1	545	43	1
17	578	35	1	558	39	1
18	590	32	1	570	36	1
19	600	30	1	581	34	1
20	610	29	1	591	32	1
21	619	27	1	600	31	1
22	627	26	1	609	29	1
23	636	25	1	618	28	1
24	643	24	2	627	28	1
25	651	24	2	635	27	1
26	658	23	2	643	26	2
27	665	22	2	651	26	2
28	672	22	2	658	25	2
29	679	22	2	666	25	2
30	686	21	2	674	24	2
31	692	21	2	681	24	2
32	699	21	2	689	24	2
33	706	21	3	696	23	2
34	712	21	3	704	23	3

continued

<i>Raw Score</i>	<i>2015</i>			<i>2014</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
35	719	20	3	712	23	3
36	726	21	3	719	23	3
37	733	21	3	727	23	3
38	740	21	3	736	24	3
39	748	21	3	744	24	3
40	756	22	3	753	24	3
41	764	22	3	763	25	3
42	773	23	3	773	26	3
43	783	24	3	784	27	3
44	794	25	3	797	29	3
45	807	27	4	811	31	4
46	822	30	4	828	35	4
47	840	34	4	850	40	4
48	866	42	4	880	50	4
49	909	60	4	933	75	4
50	990	119	4	990	116	4

**Table M-3. 2014–15 OCCT: Raw to Scaled Score Correspondence—  
Mathematics Grade 5**

<i>Raw Score</i>	<i>2015</i>			<i>2014</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
0	400	141	1	400	179	1
1	400	141	1	400	179	1
2	400	141	1	400	179	1
3	400	141	1	400	179	1
4	400	141	1	400	179	1
5	400	141	1	400	179	1
6	400	141	1	400	179	1
7	400	141	1	400	179	1
8	400	141	1	400	179	1
9	400	141	1	400	179	1
10	400	141	1	400	179	1
11	400	141	1	414	164	1
12	442	121	1	466	112	1
13	488	80	1	498	80	1
14	519	62	1	522	63	1
15	541	51	1	540	53	1
16	560	45	1	556	46	1
17	576	40	1	570	42	1
18	589	37	1	582	38	1
19	602	34	1	594	35	1
20	613	32	1	604	33	1
21	623	30	1	614	32	1
22	633	28	1	624	30	1
23	642	27	2	633	29	1
24	651	26	2	641	28	2

continued

<i>Raw Score</i>	<i>2015</i>			<i>2014</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
25	659	25	2	650	27	2
26	667	24	2	658	26	2
27	674	23	2	666	26	2
28	681	22	2	674	25	2
29	688	22	2	682	25	2
30	695	21	2	690	25	2
31	702	21	3	698	24	2
32	709	20	3	706	24	3
33	716	20	3	713	24	3
34	723	20	3	721	24	3
35	730	20	3	729	24	3
36	737	20	3	737	24	3
37	744	20	3	746	24	3
38	751	20	3	754	24	3
39	759	20	3	763	24	3
40	767	21	3	772	25	3
41	775	21	3	782	25	3
42	784	22	3	793	26	4
43	794	23	4	804	28	4
44	805	24	4	817	29	4
45	818	26	4	832	32	4
46	833	29	4	849	35	4
47	853	35	4	871	40	4
48	881	44	4	900	48	4
49	932	69	4	949	69	4
50	990	110	4	990	95	4

**Table M-4. 2014–15 OCCT: Raw to Scaled Score Correspondence—  
Mathematics Grade 6**

<i>Raw Score</i>	<i>2015</i>			<i>2014</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
0	400	141	1	400	201	1
1	400	141	1	400	201	1
2	400	141	1	400	201	1
3	400	141	1	400	201	1
4	400	141	1	400	201	1
5	400	141	1	400	201	1
6	400	141	1	400	201	1
7	400	141	1	400	201	1
8	400	141	1	400	201	1
9	400	141	1	400	201	1
10	424	78	1	446	155	1
11	498	54	1	498	104	1
12	533	45	1	528	73	1
13	557	39	1	550	58	1
14	576	36	1	568	49	1

continued



<i>Raw Score</i>	<i>2015</i>			<i>2014</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
15	592	33	1	583	43	1
16	606	31	1	596	39	1
17	618	29	1	608	35	1
18	630	28	1	619	33	1
19	640	26	1	629	31	1
20	649	25	1	638	29	1
21	658	24	1	647	28	1
22	667	23	2	656	27	1
23	675	22	2	664	26	2
24	682	21	2	672	25	2
25	690	21	2	680	24	2
26	697	20	2	687	23	2
27	704	20	3	694	23	2
28	710	19	3	702	22	3
29	717	19	3	709	22	3
30	723	19	3	716	21	3
31	730	19	3	722	21	3
32	736	18	3	729	20	3
33	742	18	3	736	20	3
34	749	18	3	743	20	3
35	755	18	3	750	19	3
36	762	18	3	756	19	3
37	768	18	3	763	19	3
38	775	18	3	770	19	3
39	781	18	3	777	19	3
40	788	18	3	784	19	3
41	796	18	4	791	19	3
42	803	19	4	799	19	4
43	812	20	4	807	19	4
44	821	21	4	816	20	4
45	831	24	4	826	22	4
46	844	28	4	838	24	4
47	860	36	4	853	29	4
48	882	54	4	874	37	4
49	922	105	4	913	56	4
50	990	105	4	990	121	4

**Table M-5. 2014–15 OCCT: Raw to Scaled Score Correspondence—  
Mathematics Grade 7**

<i>Raw Score</i>	<i>2015</i>			<i>2014</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
0	400	141	1	400	204	1
1	400	141	1	400	204	1
2	400	141	1	400	204	1
3	400	141	1	400	204	1
4	400	141	1	400	204	1

continued

<i>Raw Score</i>	<i>2015</i>			<i>2014</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
5	400	141	1	400	204	1
6	400	141	1	400	204	1
7	400	141	1	400	204	1
8	400	141	1	400	204	1
9	400	141	1	400	204	1
10	452	73	1	453	151	1
11	517	52	1	502	102	1
12	549	43	1	531	73	1
13	572	38	1	553	59	1
14	590	35	1	571	51	1
15	605	32	1	587	45	1
16	619	31	1	601	41	1
17	631	29	1	614	38	1
18	641	27	1	625	35	1
19	651	26	1	636	33	1
20	661	25	1	647	31	1
21	669	23	1	656	30	1
22	677	22	2	666	28	1
23	685	21	2	674	27	2
24	692	20	2	683	26	2
25	699	20	2	691	25	2
26	705	19	3	699	24	2
27	712	19	3	707	24	3
28	718	18	3	714	23	3
29	724	18	3	721	22	3
30	730	18	3	729	22	3
31	736	18	3	736	22	3
32	742	18	3	743	22	3
33	748	18	3	750	21	3
34	754	18	3	758	21	3
35	760	18	3	765	21	3
36	766	18	3	773	21	3
37	773	18	3	780	21	3
38	780	19	3	788	21	3
39	786	19	3	796	21	3
40	794	19	3	804	21	4
41	801	19	4	812	21	4
42	810	20	4	821	22	4
43	818	21	4	831	23	4
44	828	23	4	842	25	4
45	839	27	4	855	28	4
46	853	31	4	871	32	4
47	871	40	4	891	37	4
48	895	58	4	919	45	4
49	938	92	4	966	65	4
50	990	92	4	990	79	4

**Table M-6. 2014–15 OCCT: Raw to Scaled Score Correspondence—  
Mathematics Grade 8**

<i>Raw Score</i>	<i>2015</i>			<i>2014</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
0	400	141	1	400	203	1
1	400	141	1	400	203	1
2	400	141	1	400	203	1
3	400	141	1	400	203	1
4	400	141	1	400	203	1
5	400	141	1	400	203	1
6	400	141	1	400	203	1
7	400	141	1	400	203	1
8	400	141	1	400	203	1
9	400	141	1	400	203	1
10	420	89	1	458	145	1
11	523	59	1	504	100	1
12	560	47	1	533	73	1
13	583	39	1	555	58	1
14	601	34	1	573	50	1
15	615	31	1	588	43	1
16	627	28	1	602	39	1
17	637	26	1	613	35	1
18	647	24	2	624	32	1
19	655	23	2	634	30	1
20	663	21	2	643	28	2
21	670	20	2	651	27	2
22	677	20	2	659	25	2
23	683	19	2	667	24	2
24	689	18	2	675	24	2
25	695	18	2	682	23	2
26	701	17	3	689	23	2
27	706	17	3	696	22	2
28	712	17	3	703	22	3
29	717	17	3	710	22	3
30	723	17	3	717	21	3
31	728	16	3	724	21	3
32	733	16	3	731	21	3
33	739	17	3	738	21	3
34	744	17	3	745	21	3
35	750	17	3	752	21	3
36	755	17	3	760	21	3
37	761	17	3	767	21	3
38	768	18	3	775	21	4
39	773	18	3	783	21	4
40	781	19	4	791	21	4
41	788	20	4	800	22	4
42	796	21	4	809	22	4
43	805	22	4	819	23	4
44	815	24	4	830	25	4
45	826	27	4	843	26	4

continued

<i>Raw Score</i>	<i>2015</i>			<i>2014</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
46	840	31	4	858	29	4
47	857	38	4	876	34	4
48	881	56	4	902	41	4
49	922	106	4	945	60	4
50	990	106	4	990	88	4

**Table M-7. 2014–15 OCCT: Raw to Scaled Score Correspondence—  
Reading Grade 3**

<i>Raw Score</i>	<i>2015</i>			<i>2014</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
0	400	141	1	400	204	1
1	400	141	1	400	204	1
2	400	141	1	400	204	1
3	400	141	1	400	204	1
4	400	141	1	400	204	1
5	400	141	1	400	204	1
6	400	141	1	400	204	1
7	400	141	1	400	204	1
8	400	141	1	400	204	1
9	400	141	1	400	204	1
10	414	141	1	423	180	1
11	474	84	1	488	116	1
12	508	62	1	522	82	1
13	532	50	1	546	62	1
14	550	43	1	564	51	1
15	566	38	1	579	44	1
16	579	34	1	592	39	1
17	591	32	1	603	35	1
18	602	29	1	613	32	1
19	612	28	1	623	30	1
20	621	26	1	631	28	1
21	630	25	1	639	27	1
22	638	24	1	647	26	1
23	646	23	1	655	25	2
24	654	23	2	662	24	2
25	661	22	2	669	23	2
26	668	22	2	675	23	2
27	676	22	2	682	22	2
28	683	21	2	689	22	2
29	690	21	2	695	22	2
30	697	21	2	702	22	3
31	704	21	3	709	22	3
32	712	21	3	716	22	3
33	719	21	3	723	22	3
34	726	21	3	730	23	3
35	734	22	3	737	23	3

continued

Raw Score	2015			2014		
	Scaled Score	Standard Error	Performance Level	Scaled Score	Standard Error	Performance Level
36	742	22	3	745	23	3
37	750	22	3	753	24	3
38	758	23	3	761	24	3
39	767	24	3	770	25	3
40	777	24	3	779	25	3
41	787	25	3	789	26	3
42	798	27	3	800	27	3
43	810	28	3	812	29	3
44	824	30	3	825	31	3
45	839	33	3	840	33	3
46	858	36	3	859	37	3
47	881	42	3	882	44	3
48	914	52	4	915	55	4
49	969	75	4	975	86	4
50	990	86	4	990	96	4

**Table M-8. 2014–15 OCCT: Raw to Scaled Score Correspondence—  
Reading Grade 4**

Raw Score	2015			2014		
	Scaled Score	Standard Error	Performance Level	Scaled Score	Standard Error	Performance Level
0	400	128	1	400	175	1
1	400	128	1	400	175	1
2	400	128	1	400	175	1
3	400	128	1	400	175	1
4	400	128	1	400	175	1
5	400	128	1	400	175	1
6	400	128	1	400	175	1
7	400	128	1	400	175	1
8	400	128	1	400	175	1
9	400	128	1	400	175	1
10	400	128	1	454	121	1
11	435	86	1	491	84	1
12	474	59	1	515	62	1
13	500	48	1	533	50	1
14	521	41	1	548	42	1
15	538	37	1	561	37	1
16	552	33	1	571	34	1
17	565	31	1	581	31	1
18	576	29	1	590	29	1
19	587	28	1	599	27	1
20	597	26	1	607	26	1
21	606	25	1	614	25	1
22	615	25	1	621	24	1
23	623	24	1	628	23	1
24	631	23	1	635	23	1

continued

<i>Raw Score</i>	<i>2015</i>			<i>2014</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
25	639	23	1	642	22	1
26	647	22	1	648	22	1
27	654	22	1	655	22	1
28	661	21	2	661	21	2
29	668	21	2	667	21	2
30	675	20	2	674	21	2
31	682	20	2	680	21	2
32	689	19	2	687	21	2
33	696	19	2	693	21	2
34	703	19	3	700	21	3
35	710	19	3	707	22	3
36	717	19	3	714	22	3
37	724	20	3	721	22	3
38	732	20	3	729	23	3
39	740	21	3	737	23	3
40	749	22	3	746	24	3
41	759	23	3	755	25	3
42	770	25	3	765	26	3
43	782	27	3	776	27	3
44	796	29	3	789	29	3
45	812	32	3	803	32	3
46	832	37	3	820	35	3
47	858	43	4	842	41	3
48	894	55	4	873	51	4
49	958	84	4	925	74	4
50	990	103	4	990	116	4

**Table M-9. 2014–15 OCCT: Raw to Scaled Score Correspondence—  
Reading Grade 5**

<i>Raw Score</i>	<i>2015</i>			<i>2014</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
0	400	124	1	400	173	1
1	400	124	1	400	173	1
2	400	124	1	400	173	1
3	400	124	1	400	173	1
4	400	124	1	400	173	1
5	400	124	1	400	173	1
6	400	124	1	400	173	1
7	400	124	1	400	173	1
8	400	124	1	400	173	1
9	400	124	1	400	173	1
10	400	124	1	400	173	1
11	400	124	1	459	114	1
12	430	96	1	493	80	1
13	472	67	1	516	60	1
14	501	54	1	533	49	1

continued

<i>Raw Score</i>	<i>2015</i>			<i>2014</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
15	524	46	1	547	41	1
16	542	41	1	559	36	1
17	558	38	1	570	33	1
18	571	35	1	579	30	1
19	583	32	1	588	28	1
20	595	30	1	596	26	1
21	605	28	1	604	25	1
22	614	27	1	611	24	1
23	623	25	1	618	23	1
24	631	24	1	625	23	1
25	639	23	1	631	22	1
26	647	22	2	638	22	1
27	654	21	2	644	22	2
28	661	21	2	651	22	2
29	668	20	2	657	22	2
30	675	20	2	664	22	2
31	682	20	2	671	22	2
32	689	20	2	678	22	2
33	696	20	2	685	22	2
34	703	20	3	692	23	2
35	710	20	3	700	23	3
36	717	20	3	708	24	3
37	725	21	3	716	24	3
38	733	21	3	724	25	3
39	741	21	3	733	25	3
40	750	22	3	743	26	3
41	760	23	3	753	27	3
42	770	24	3	764	28	3
43	782	26	3	776	30	3
44	795	28	3	790	32	3
45	811	31	3	806	35	3
46	830	36	4	825	40	3
47	855	44	4	851	48	4
48	892	56	4	887	61	4
49	957	87	4	953	97	4
50	990	108	4	990	123	4

**Table M-10. 2014–15 OCCT: Raw to Scaled Score Correspondence—  
Reading Grade 6**

<i>Raw Score</i>	<i>2015</i>			<i>2014</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
0	400	141	1	400	185	1
1	400	141	1	400	185	1
2	400	141	1	400	185	1
3	400	141	1	400	185	1
4	400	141	1	400	185	1

continued

<i>Raw Score</i>	<i>2015</i>			<i>2014</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
5	400	141	1	400	185	1
6	400	141	1	400	185	1
7	400	141	1	400	185	1
8	400	141	1	400	185	1
9	400	141	1	404	180	1
10	400	110	1	470	115	1
11	438	71	1	505	80	1
12	483	55	1	528	61	1
13	512	45	1	547	50	1
14	533	39	1	562	43	1
15	550	35	1	574	38	1
16	564	32	1	586	34	1
17	576	30	1	596	32	1
18	587	28	1	605	30	1
19	597	27	1	614	28	1
20	607	25	1	622	27	1
21	615	24	1	630	26	1
22	624	23	1	637	25	1
23	631	22	1	644	24	1
24	639	22	1	651	23	2
25	646	21	1	658	23	2
26	653	21	2	665	22	2
27	660	20	2	671	22	2
28	667	20	2	678	22	2
29	673	20	2	685	22	2
30	680	20	2	691	22	2
31	687	20	2	698	22	2
32	694	20	2	704	22	3
33	701	20	3	711	22	3
34	708	20	3	718	22	3
35	715	21	3	725	22	3
36	722	21	3	733	23	3
37	730	21	3	741	23	3
38	738	22	3	749	24	3
39	746	22	3	757	25	3
40	755	23	3	766	25	3
41	765	24	3	776	27	3
42	775	25	3	787	28	3
43	786	28	3	799	30	3
44	799	31	3	812	32	3
45	815	36	3	828	35	4
46	834	43	4	847	39	4
47	860	57	4	872	46	4
48	897	92	4	906	57	4
49	966	107	4	966	84	4
50	990	107	4	990	99	4



**Table M-11. 2014–15 OCCT: Raw to Scaled Score Correspondence—  
Reading Grade 7**

<i>Raw Score</i>	<i>2015</i>			<i>2014</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
0	400	141	1	400	205	1
1	400	141	1	400	205	1
2	400	141	1	400	205	1
3	400	141	1	400	205	1
4	400	141	1	400	205	1
5	400	141	1	400	205	1
6	400	141	1	400	205	1
7	400	141	1	400	205	1
8	400	141	1	400	205	1
9	400	141	1	400	205	1
10	414	80	1	481	124	1
11	470	58	1	523	82	1
12	502	47	1	547	58	1
13	524	40	1	564	45	1
14	542	36	1	577	37	1
15	556	33	1	588	33	1
16	569	30	1	598	29	1
17	580	29	1	606	26	1
18	590	27	1	614	25	1
19	600	26	1	621	23	1
20	609	24	1	628	22	1
21	617	23	1	634	21	1
22	624	23	1	640	20	1
23	632	22	1	646	19	1
24	639	21	1	651	18	1
25	646	21	1	657	18	1
26	652	20	1	662	17	1
27	659	20	1	667	17	1
28	665	20	1	672	17	2
29	672	19	2	677	17	2
30	678	19	2	682	17	2
31	684	19	2	687	16	2
32	691	19	2	692	16	2
33	697	20	2	697	17	2
34	704	20	3	703	17	3
35	711	20	3	708	17	3
36	718	20	3	714	17	3
37	725	21	3	720	18	3
38	732	21	3	726	18	3
39	740	22	3	732	19	3
40	749	23	3	739	19	3
41	758	24	3	747	20	3
42	767	25	3	755	21	3
43	778	27	3	765	23	3
44	790	29	3	775	24	3
45	804	33	4	787	27	3

continued

<i>Raw Score</i>	<i>2015</i>			<i>2014</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
46	821	38	4	802	30	4
47	842	47	4	821	35	4
48	872	70	4	848	44	4
49	924	115	4	895	68	4
50	990	115	4	990	148	4

**Table M-12. 2014–15 OCCT: Raw to Scaled Score Correspondence—  
Reading Grade 8**

<i>Raw Score</i>	<i>2015</i>			<i>2014</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
0	400	141	1	400	175	1
1	400	141	1	400	175	1
2	400	141	1	400	175	1
3	400	141	1	400	175	1
4	400	141	1	400	175	1
5	400	141	1	400	175	1
6	400	141	1	400	175	1
7	400	141	1	400	175	1
8	400	141	1	400	175	1
9	400	141	1	400	175	1
10	400	141	1	406	169	1
11	423	79	1	462	113	1
12	466	60	1	494	80	1
13	494	49	1	518	62	1
14	516	42	1	536	51	1
15	533	38	1	551	44	1
16	547	34	1	564	39	1
17	560	32	1	575	35	1
18	572	29	1	585	33	1
19	582	28	1	595	31	1
20	592	26	1	604	29	1
21	601	25	1	612	28	1
22	609	25	1	620	27	1
23	618	24	1	628	27	1
24	626	24	1	636	26	1
25	634	23	1	644	26	1
26	642	23	1	651	26	1
27	649	23	1	659	25	2
28	657	23	2	666	25	2
29	665	23	2	674	25	2
30	673	23	2	682	25	2
31	680	23	2	689	25	2
32	688	23	2	697	25	2
33	697	24	2	705	26	3
34	705	24	3	714	26	3
35	714	24	3	722	26	3

continued

<i>Raw Score</i>	<i>2015</i>			<i>2014</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
36	722	25	3	731	27	3
37	732	25	3	740	27	3
38	741	26	3	750	28	3
39	751	27	3	760	29	3
40	762	28	3	771	30	3
41	774	29	3	782	31	3
42	786	31	3	795	32	3
43	800	33	3	809	34	3
44	816	36	3	825	36	3
45	834	40	4	843	39	4
46	855	46	4	864	43	4
47	883	58	4	891	50	4
48	921	92	4	928	61	4
49	990	92	4	990	89	4
50	990	92	4	990	89	4

**Table M-13. 2014–15 OCCT: Raw to Scaled Score Correspondence—  
Writing Grade 5**

<i>Raw Score</i>	<i>2015</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
15	15		1
16	16		1
17	17		1
18	18		1
19	19		1
20	20		1
21	21		1
22	22		1
23	23		2
24	24		2
25	25		2
26	26		2
27	27		2
28	28		2
29	29		2
30	30		2
31	31		2
32	32		2
33	33		2
34	34		2
35	35		2
36	36		3
37	37		3
38	38		3
39	39		3

continued

<i>Raw Score</i>	<i>2015</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
40	40		3
41	41		3
42	42		3
43	43		3
44	44		3
45	45		3
46	46		3
47	47		3
48	48		4
49	49		4
50	50		4
51	51		4
52	52		4
53	53		4
54	54		4
55	55		4
56	56		4
57	57		4
58	58		4
59	59		4
60	60		4

**Table M-14. 2014–15 OCCT: Raw to Scaled Score Correspondence—  
Writing Grade 8**

<i>Raw Score</i>	<i>2015</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
15	15		1
16	16		1
17	17		1
18	18		1
19	19		1
20	20		1
21	21		1
22	22		1
23	23		1
24	24		1
25	25		2
26	26		2
27	27		2
28	28		2
29	29		2
30	30		2
31	31		2
32	32		2
33	33		2
34	34		2

continued

<i>Raw Score</i>	2015		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
35	35		2
36	36		3
37	37		3
38	38		3
39	39		3
40	40		3
41	41		3
42	42		3
43	43		3
44	44		3
45	45		3
46	46		3
47	47		3
48	48		3
49	49		3
50	50		4
51	51		4
52	52		4
53	53		4
54	54		4
55	55		4
56	56		4
57	57		4
58	58		4
59	59		4
60	60		4

**Table M-15. 2014–15 OCCT: Raw to Scaled Score Correspondence—  
Social Studies Grade 5**

<i>Raw Score</i>	2015			2014		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
0	400	59.0	1	400	219.0	1
1	400	59.0	1	400	219.0	1
2	400	59.0	1	400	219.0	1
3	400	59.0	1	400	219.0	1
4	400	59.0	1	400	219.0	1
5	400	59.0	1	400	219.0	1
6	400	59.0	1	400	219.0	1
7	400	59.0	1	400	219.0	1
8	400	59.0	1	400	219.0	1
9	400	59.0	1	400	219.0	1
10	400	59.0	1	400	219.0	1
11	448	59.0	1	400	219.0	1
12	534	59.0	1	473	146.0	1
13	570	59.0	1	518	101.0	1
14	593	46.6	1	546	73.0	1

continued

<i>Raw Score</i>	<i>2015</i>			<i>2014</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
15	610	39.1	1	567	57.0	1
16	624	34.1	1	583	47.0	1
17	636	30.6	1	596	41.0	1
18	646	28.0	2	608	36.0	1
19	655	25.9	2	618	33.0	2
20	663	24.3	2	628	30.0	2
21	671	22.9	2	636	28.0	2
22	678	21.8	2	644	26.0	2
23	685	20.9	3	652	25.0	2
24	691	20.1	3	659	24.0	2
25	698	19.4	3	665	23.0	3
26	703	18.8	3	672	22.0	3
27	709	18.3	3	678	21.0	3
28	715	17.9	3	684	20.0	3
29	721	17.5	3	690	20.0	3
30	726	17.2	3	696	20.0	3
31	731	17.0	3	702	19.0	3
32	737	16.9	4	708	19.0	3
33	742	16.7	4	713	19.0	4
34	748	16.7	4	719	19.0	4
35	754	16.7	4	725	19.0	4
36	759	16.8	4	732	19.0	4
37	765	16.9	4	738	20.0	4
38	771	17.1	4	745	20.0	4
39	778	17.4	4	752	21.0	4
40	784	17.8	4	759	21.0	4
41	792	18.4	4	768	22.0	4
42	799	19.2	4	777	23.0	4
43	808	20.2	4	787	25.0	4
44	818	21.6	4	798	27.0	4
45	829	23.5	4	812	30.0	4
46	842	26.3	4	828	34.0	4
47	860	30.7	4	850	42.0	4
48	885	38.7	4	883	56.0	4
49	929	59.0	4	951	104.0	4
50	990	59.0	4	990	143.0	4

**Table M-16. 2014–15 OCCT: Raw to Scaled Score Correspondence—  
Geography Grade 7**

<i>Raw Score</i>	<i>2015</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
0	400	59.0	1
1	400	59.0	1
2	400	59.0	1
3	400	59.0	1
4	400	59.0	1

continued

<i>Raw Score</i>	<i>2015</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
5	400	59.0	1
6	400	59.0	1
7	400	59.0	1
8	400	59.0	1
9	400	59.0	1
10	400	59.0	1
11	400	59.0	1
12	453	59.0	1
13	503	59.0	1
14	536	59.0	1
15	560	52.7	1
16	579	45.7	1
17	596	40.9	1
18	610	37.5	2
19	623	35.0	2
20	635	33.1	2
21	646	31.6	2
22	657	30.4	2
23	667	29.4	3
24	677	28.6	3
25	686	27.9	3
26	695	27.3	3
27	704	26.8	3
28	713	26.3	3
29	721	26.0	3
30	730	25.7	4
31	738	25.5	4
32	747	25.4	4
33	756	25.4	4
34	765	25.5	4
35	774	25.6	4
36	783	25.9	4
37	792	26.2	4
38	802	26.6	4
39	813	27.2	4
40	824	28.0	4
41	836	29.0	4
42	849	30.3	4
43	864	32.2	4
44	881	34.9	4
45	901	38.9	4
46	927	45.6	4
47	964	58.3	4
48	990	59.0	4
49	990	59.0	4

**Table M-17. 2014–15 OCCT: Raw to Scaled Score Correspondence—  
U.S. History Grade 8**

<i>Raw Score</i>	<i>2015</i>			<i>2014</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
0	400	59.0	1	400	210.0	1
1	400	59.0	1	400	210.0	1
2	400	59.0	1	400	210.0	1
3	400	59.0	1	400	210.0	1
4	400	59.0	1	400	210.0	1
5	400	59.0	1	400	210.0	1
6	400	59.0	1	400	210.0	1
7	400	59.0	1	400	210.0	1
8	400	59.0	1	400	210.0	1
9	400	59.0	1	400	210.0	1
10	400	59.0	1	400	210.0	1
11	400	59.0	1	400	210.0	1
12	400	59.0	1	465	145.0	1
13	452	59.0	1	514	96.0	1
14	501	59.0	1	541	69.0	1
15	530	53.7	1	560	53.0	1
16	552	44.3	1	575	44.0	1
17	569	38.1	1	587	38.0	1
18	583	33.7	1	598	33.0	1
19	596	30.3	1	608	30.0	1
20	607	27.8	1	616	28.0	2
21	616	25.8	1	624	26.0	2
22	625	24.2	1	632	24.0	2
23	633	22.9	1	639	23.0	2
24	641	21.9	2	646	22.0	2
25	649	21.0	2	652	22.0	2
26	656	20.3	2	658	21.0	2
27	663	19.7	2	665	20.0	3
28	669	19.3	2	671	20.0	3
29	676	18.9	2	677	20.0	3
30	682	18.7	3	683	20.0	3
31	689	18.6	3	689	19.0	3
32	695	18.5	3	695	19.0	3
33	702	18.5	3	702	19.0	3
34	709	18.6	3	708	19.0	3
35	715	18.8	3	715	20.0	4
36	722	19.0	3	721	20.0	4
37	730	19.3	3	728	20.0	4
38	737	19.7	4	735	20.0	4
39	745	20.2	4	743	20.0	4
40	753	20.8	4	751	21.0	4
41	762	21.6	4	759	21.0	4
42	772	22.6	4	768	22.0	4
43	783	23.9	4	777	23.0	4
44	796	25.8	4	788	24.0	4
45	810	28.5	4	800	26.0	4

continued



<i>Raw Score</i>	<i>2015</i>			<i>2014</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
46	828	32.4	4	815	30.0	4
47	851	38.1	4	834	36.0	4
48	884	46.6	4	863	49.0	4
49	941	59.0	4	922	88.0	4
50	990	59.0	4	990	146.0	4

**Table M-18. 2014–15 OCCT: Raw to Scaled Score Correspondence—  
Science Grade 5**

<i>Raw Score</i>	<i>2015</i>			<i>2014</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
0	400	59.0	1	400	160.0	1
1	400	59.0	1	400	160.0	1
2	400	59.0	1	400	160.0	1
3	400	59.0	1	400	160.0	1
4	400	59.0	1	400	160.0	1
5	400	59.0	1	400	160.0	1
6	400	59.0	1	400	160.0	1
7	400	59.0	1	400	160.0	1
8	400	59.0	1	400	160.0	1
9	408	59.0	1	400	160.0	1
10	467	59.0	1	436	124.0	1
11	499	55.7	1	475	85.0	1
12	521	45.0	1	501	64.0	1
13	538	38.4	1	521	52.0	1
14	552	33.8	1	538	44.0	1
15	565	30.5	1	552	39.0	1
16	575	28.0	1	564	35.0	1
17	585	26.0	1	575	32.0	1
18	594	24.5	1	585	30.0	1
19	602	23.2	1	594	28.0	1
20	610	22.3	1	603	27.0	1
21	617	21.5	1	611	26.0	1
22	624	20.8	1	619	25.0	1
23	631	20.3	1	627	24.0	1
24	638	19.9	1	635	23.0	1
25	645	19.6	1	642	23.0	1
26	652	19.4	2	649	23.0	2
27	658	19.3	2	657	22.0	2
28	665	19.3	2	664	22.0	2
29	672	19.3	2	671	22.0	2
30	679	19.4	2	679	22.0	2
31	686	19.5	2	686	22.0	2
32	693	19.7	2	694	23.0	2
33	700	20.0	3	702	23.0	3
34	708	20.4	3	710	23.0	3
35	716	20.7	3	719	24.0	3

continued

<i>Raw Score</i>	<i>2015</i>			<i>2014</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
36	725	21.2	3	729	25.0	3
37	734	21.6	3	739	26.0	3
38	744	22.2	3	750	27.0	3
39	754	23.1	3	763	29.0	3
40	767	24.6	4	777	33.0	4
41	781	27.3	4	796	37.0	4
42	800	32.2	4	819	45.0	4
43	826	41.7	4	854	58.0	4
44	874	59.0	4	918	91.0	4
45	990	59.0	4	990	142.0	4

**Table M-19. 2014–15 OCCT: Raw to Scaled Score Correspondence—  
Science Grade 8**

<i>Raw Score</i>	<i>2015</i>			<i>2014</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
0	400	59.0	1	400	220.0	1
1	400	59.0	1	400	220.0	1
2	400	59.0	1	400	220.0	1
3	400	59.0	1	400	220.0	1
4	400	59.0	1	400	220.0	1
5	400	59.0	1	400	220.0	1
6	400	59.0	1	400	220.0	1
7	400	59.0	1	400	220.0	1
8	400	59.0	1	400	220.0	1
9	469	59.0	1	421	199.0	1
10	521	59.0	1	514	106.0	1
11	548	44.7	1	548	72.0	1
12	566	33.7	1	569	52.0	1
13	580	27.1	1	585	42.0	1
14	591	23.4	1	598	36.0	1
15	600	21.3	1	609	32.0	1
16	609	20.0	1	619	29.0	1
17	617	19.3	1	628	27.0	1
18	624	18.8	1	636	25.0	1
19	631	18.4	1	644	24.0	1
20	638	18.1	1	652	23.0	1
21	645	17.8	1	659	22.0	2
22	651	17.5	1	666	21.0	2
23	657	17.2	1	673	20.0	2
24	664	16.8	2	679	19.0	2
25	670	16.5	2	685	19.0	2
26	676	16.3	2	691	18.0	2
27	682	16.1	2	697	18.0	2
28	688	15.9	2	703	18.0	3
29	693	15.9	2	709	17.0	3
30	699	15.9	2	715	17.0	3

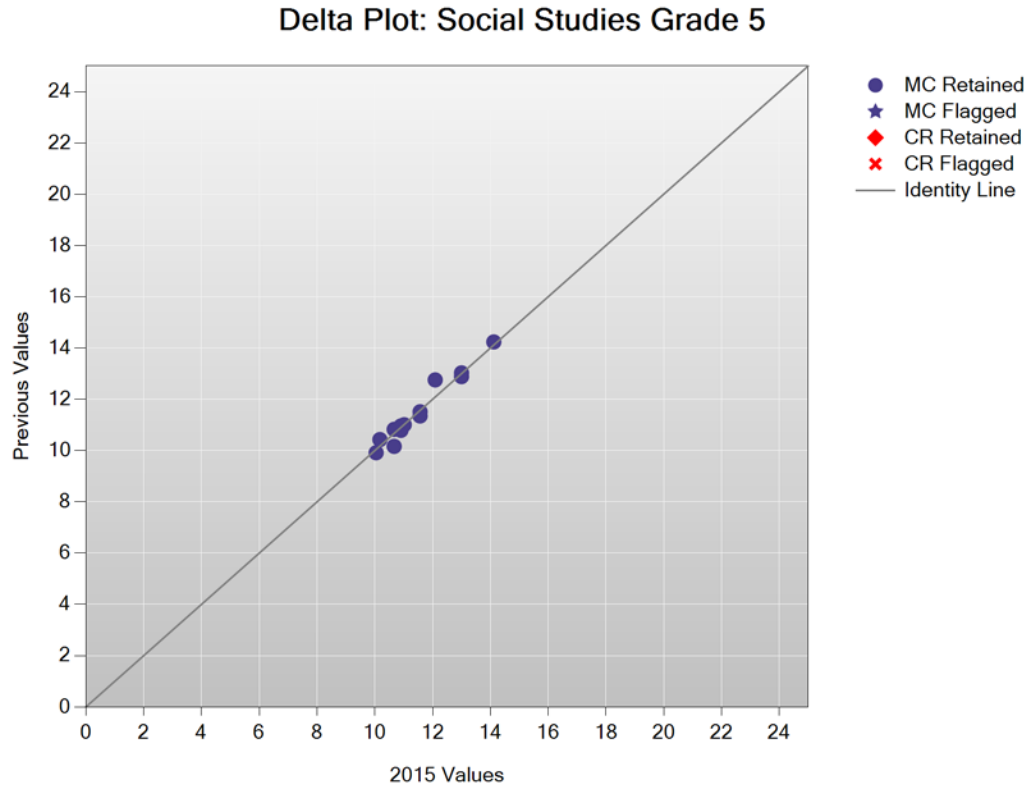
continued

<i>Raw Score</i>	<i>2015</i>			<i>2014</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
31	706	16.0	3	721	17.0	3
32	712	16.1	3	728	17.0	3
33	718	16.3	3	734	17.0	3
34	725	16.6	3	741	18.0	3
35	732	16.9	3	747	18.0	3
36	739	17.3	3	755	18.0	4
37	747	17.8	3	763	19.0	4
38	756	18.5	4	771	20.0	4
39	765	19.4	4	780	20.0	4
40	775	20.7	4	791	21.0	4
41	787	22.5	4	802	22.0	4
42	802	25.4	4	816	25.0	4
43	822	30.8	4	834	31.0	4
44	855	44.8	4	868	50.0	4
45	990	59.0	4	990	172.0	4

# APPENDIX N—DELTA ANALYSES



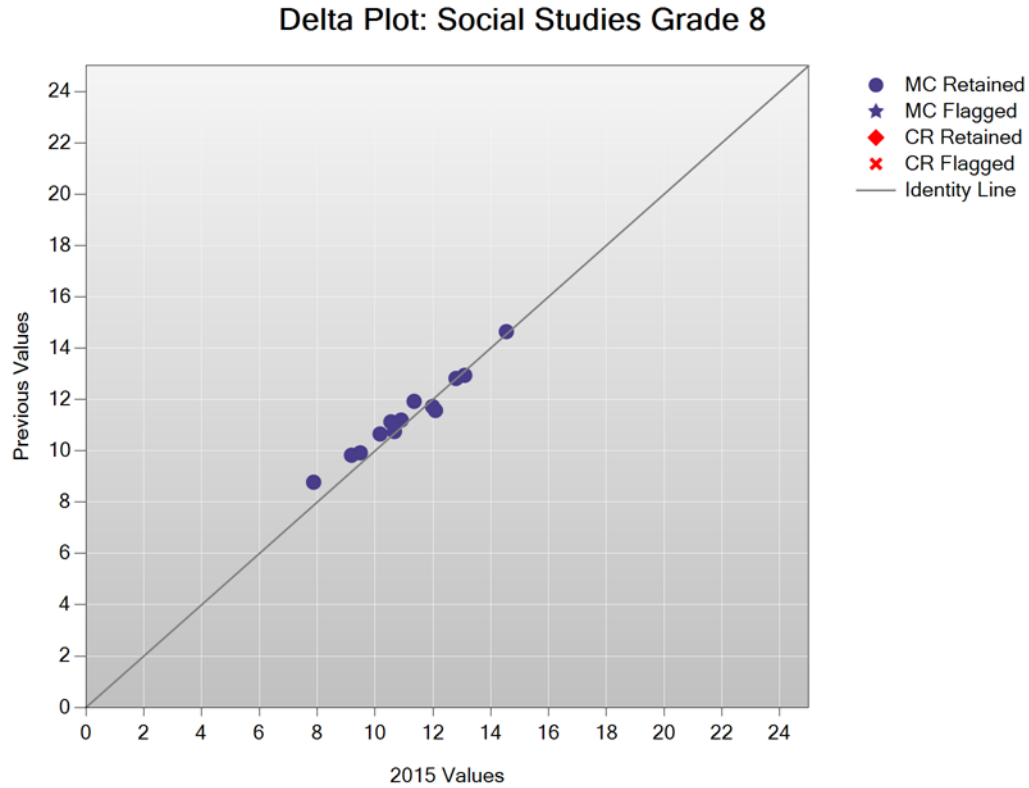
**Figure N-1. 2014–15 OCCT: Delta Plot  
Social Studies Grade 5**



**Table N-1. 2014–15 OCCT: Delta Analysis  
Social Studies Grade 5**

<i>IREF</i>	<i>P</i>		<i>Delta</i>		<i>Discard</i>	<i>Std</i>
	<i>Old</i>	<i>New</i>	<i>Old</i>	<i>New</i>		
151746A	0.73991	0.76000	10.42773	10.17479	False	0.75039
151771A	0.69503	0.70000	10.95936	10.90240	False	-0.58066
151779A	0.52443	0.59000	12.75490	12.08982	False	2.33798
151786A	0.70981	0.70000	10.78868	10.90240	False	-0.58695
151797A	0.77974	0.77000	9.91474	10.04461	False	-0.79999
151826A	0.64502	0.64000	11.51236	11.56616	False	-0.68221
155153A	0.66006	0.64000	11.34949	11.56616	False	0.21133
155171A	0.69079	0.69000	11.00764	11.01660	False	-0.98252
155176A	0.51152	0.50000	12.88448	13.00000	False	0.16066
155781A	0.70660	0.72000	10.82608	10.66863	False	0.05283
155790A	0.76098	0.72000	10.16217	10.66863	False	1.48556
155795A	0.37866	0.39000	14.23601	14.11728	False	-0.73157
155798A	0.49706	0.50000	13.02948	13.00000	False	-0.63484

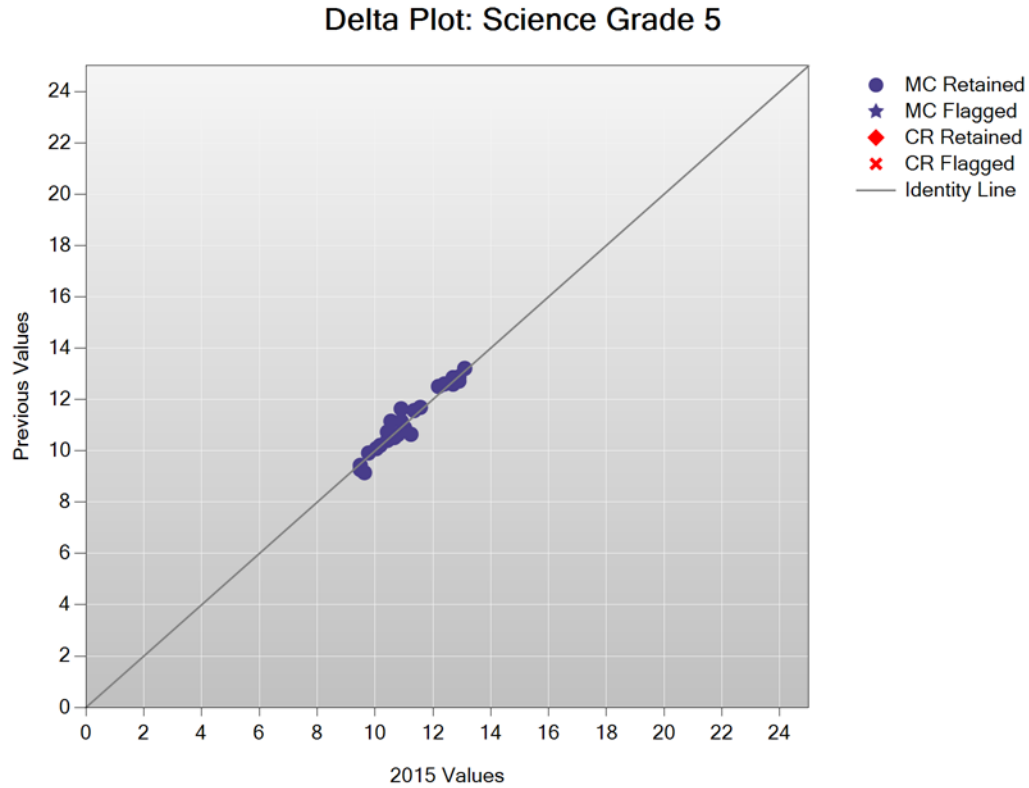
**Figure N-2. 2014–15 OCCT: Delta Plot  
U.S. History Grade 8**



**Table N-2. 2014–15 OCCT: Delta Analysis  
U.S. History Grade 8**

<i>IREF</i>	<i>P</i>		<i>Delta</i>		<i>Discard</i>	<i>Std</i>
	<i>Old</i>	<i>New</i>	<i>Old</i>	<i>New</i>		
151872A	0.71298	0.72000	10.75155	10.66863	False	0.08916
151875A	0.85457	0.90000	8.77505	7.87379	False	-0.24836
151880A	0.50595	0.49000	12.94034	13.10028	False	-0.59131
151902A	0.34071	0.35000	14.64210	14.54128	False	0.85701
151912A	0.67383	0.70000	11.19794	10.90240	False	-1.11486
151920A	0.78610	0.83000	9.82815	9.18334	False	-0.59216
151926A	0.60582	0.66000	11.92624	11.35015	False	0.84895
151928A	0.68016	0.73000	11.12741	10.54875	False	0.18685
151966A	0.63940	0.59000	11.57258	12.08982	False	2.28153
151969A	0.51804	0.52000	12.81906	12.79939	False	-1.07247
151976A	0.62522	0.60000	11.72312	11.98661	False	0.93436
155380A	0.72112	0.76000	10.65531	10.17479	False	-0.68366
155959A	0.77922	0.81000	9.92175	9.48841	False	-0.89503

**Figure N-3. 2014–15 OCCT: Delta Plot  
Science Grade 5**



**Table N-3. 2014–15 OCCT: Delta Analysis  
Science Grade 5**

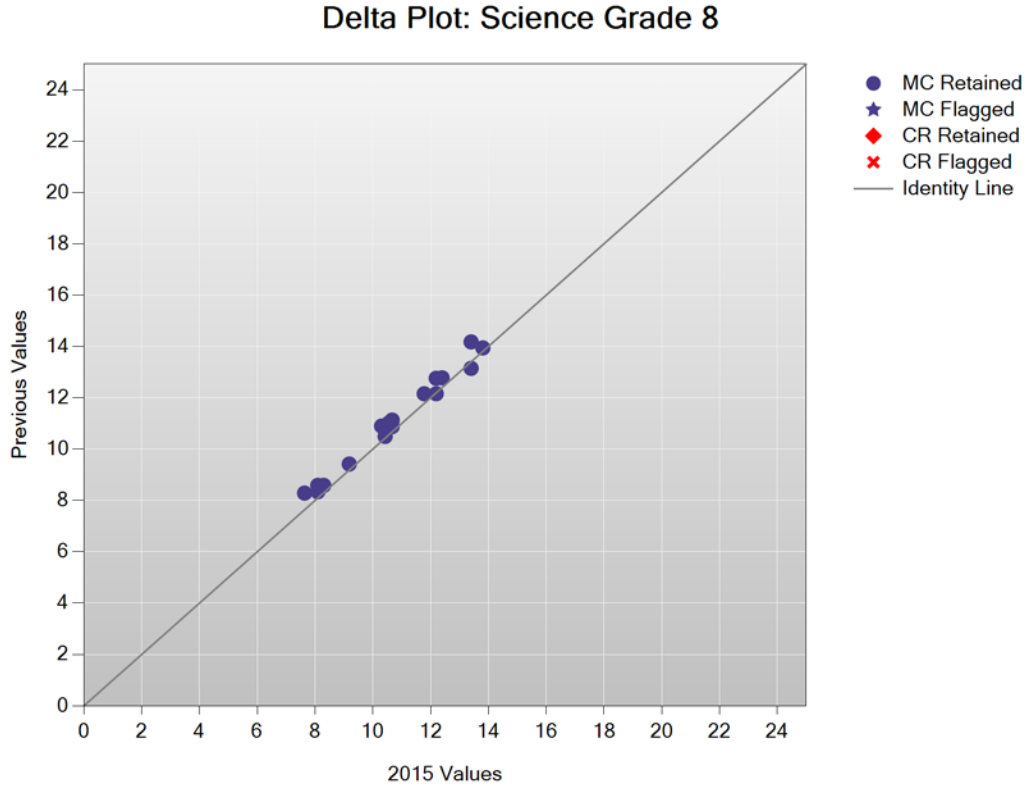
<i>IREF</i>	<i>P</i>		<i>Delta</i>		<i>Discard</i>	<i>Std</i>
	<i>Old</i>	<i>New</i>	<i>Old</i>	<i>New</i>		
149907A	0.67792	0.70000	11.15244	10.90240	False	-0.00335
149911A	0.70009	0.69000	10.90136	11.01660	False	-0.30895
149917A	0.71447	0.74000	10.73404	10.42662	False	0.42341
149920A	0.53944	0.56000	12.60391	12.39612	False	-0.64533
149926A	0.62813	0.64000	11.69238	11.56616	False	-0.82030
149930A	0.63981	0.66000	11.56820	11.35015	False	-0.29360
149931A	0.54905	0.58000	12.50695	12.19243	False	-0.04669
149934A	0.67794	0.73000	11.15222	10.54875	False	1.88681
149936A	0.51478	0.53000	12.85177	12.69892	False	-1.01014
149937A	0.74158	0.74000	10.40710	10.42662	False	-0.96251
149939A	0.72220	0.67000	10.64244	11.24035	False	2.19811
149943A	0.82440	0.81000	9.27094	9.48841	False	-0.22950
149962A	0.83219	0.80000	9.14858	9.63352	False	1.16581
149964A	0.63341	0.70000	11.63641	10.90240	False	2.44615
149965A	0.51202	0.51000	12.87946	12.89972	False	-0.24992
149967A	0.47919	0.49000	13.20875	13.10028	False	-0.84399
149981A	0.81377	0.81000	9.43250	9.48841	False	-1.04718
149984A	0.72299	0.71000	10.63301	10.78646	False	-0.18150
154261A	0.73248	0.72000	10.51868	10.66863	False	-0.23294

continued



<i>IREF</i>	<i>P</i>		<i>Delta</i>		<i>Discard</i>	<i>Std</i>
	<i>Old</i>	<i>New</i>	<i>Old</i>	<i>New</i>		
154274A	0.54025	0.53000	12.59575	12.69892	False	0.11217
154278A	0.76686	0.77000	10.08582	10.04461	False	-0.81446
154283A	0.52836	0.51000	12.71541	12.89972	False	0.58041
154287A	0.75733	0.76000	10.20904	10.17479	False	-0.88698
154290A	0.77975	0.79000	9.91460	9.77432	False	-0.23552

**Figure N-4. 2014–15 OCCT: Delta Plot  
Science Grade 8**



**Table N-4. 2014–15 OCCT: Delta Analysis  
Science Grade 8**

<i>IREF</i>	<i>P</i>		<i>Delta</i>		<i>Discard</i>	<i>Std</i>
	<i>Old</i>	<i>New</i>	<i>Old</i>	<i>New</i>		
149803A	0.73446	0.74000	10.49457	10.42662	False	0.46295
149809A	0.88074	0.91000	8.28522	7.63698	False	0.24937
149814A	0.58351	0.62000	12.15648	11.77808	False	-1.00129
149821A	0.86510	0.89000	8.58591	8.09389	False	-0.79921
149823A	0.81470	0.83000	9.41860	9.18334	False	-0.53397
149825A	0.86503	0.88000	8.58720	8.30005	False	-0.75987
149862A	0.40680	0.42000	13.94314	13.80757	False	-0.58937
149901A	0.52401	0.58000	12.75912	12.19243	False	0.42393
149904A	0.52230	0.56000	12.77629	12.39612	False	-0.88518
149906A	0.70215	0.72000	10.87762	10.66863	False	-0.59318
149913A	0.70035	0.75000	10.89837	10.30204	False	0.32122
154135A	0.87804	0.89000	8.33902	8.09389	False	-0.42287
154140A	0.58324	0.58000	12.15924	12.19243	False	0.89591
154150A	0.48536	0.46000	13.14682	13.40173	False	2.29038
154186A	0.38430	0.46000	14.17683	13.40173	False	2.12689
154187A	0.67989	0.72000	11.13044	10.66863	False	-0.58623
154191A	0.69045	0.73000	11.01149	10.54875	False	-0.59947

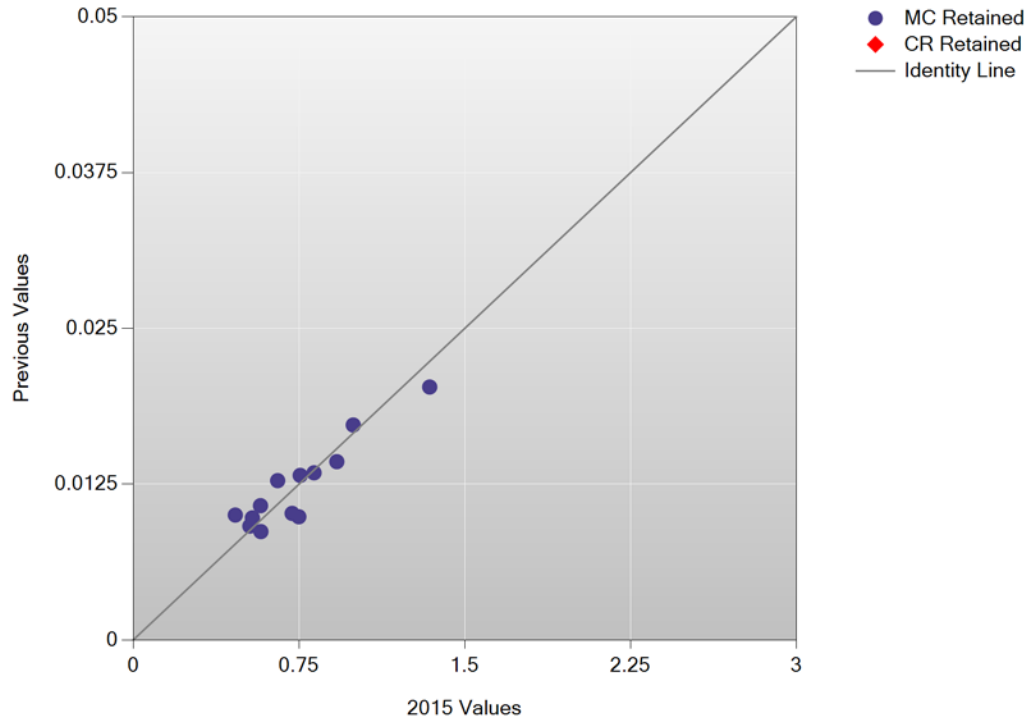
# APPENDIX O—A-PLOTS AND B-PLOTS-POST-EQUATED



Figure O-1. 2014–15 OCCT: Social Studies Grade 5

Top:  $\alpha$ -Plot Bottom:  $b$ -Plot

A/A Plot: Social Studies Grade 5



B/B Plot: Social Studies Grade 5

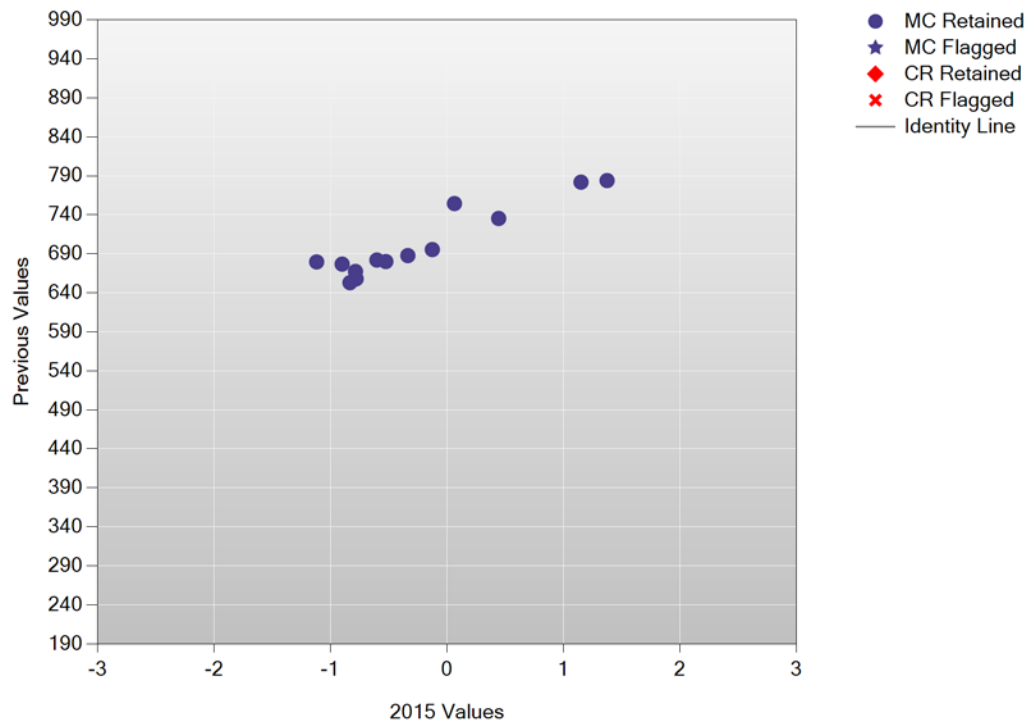
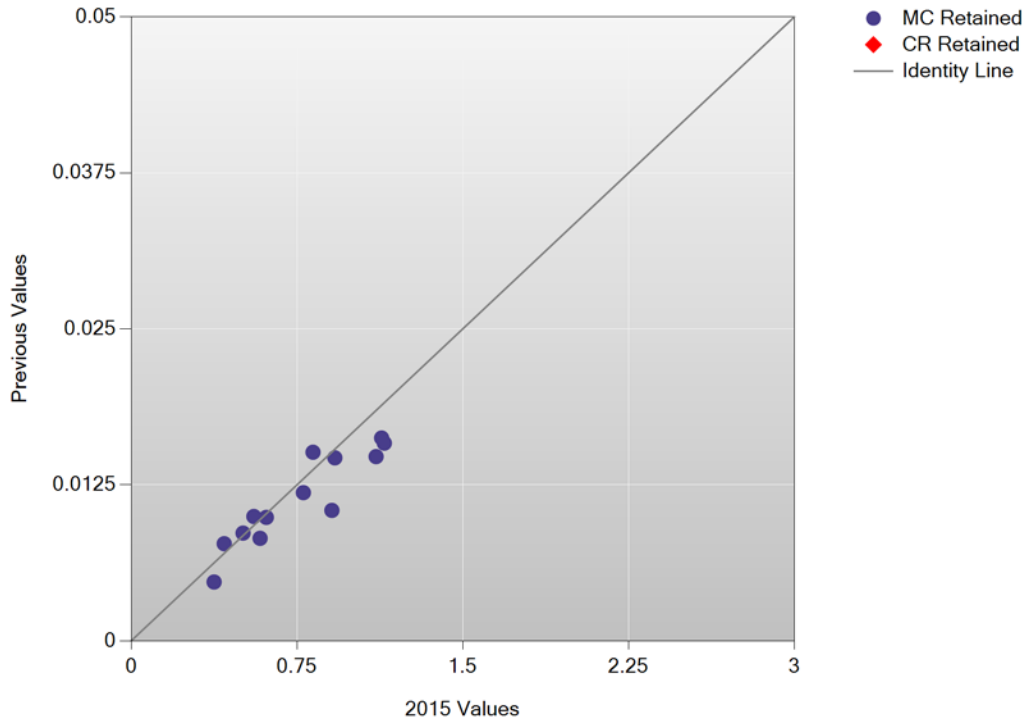


Figure O-2. 2014–15 OCCT: U.S. History Grade 8

Top: *a*-Plot Bottom: *b*-Plot

A/A Plot: Social Studies Grade 8



B/B Plot: Social Studies Grade 8

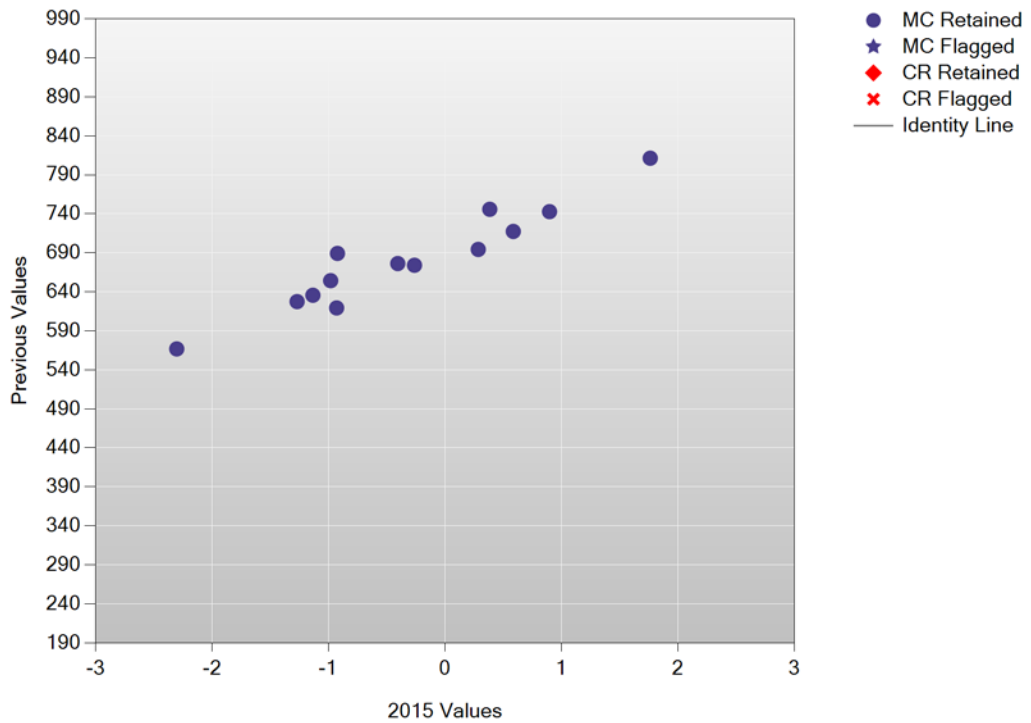
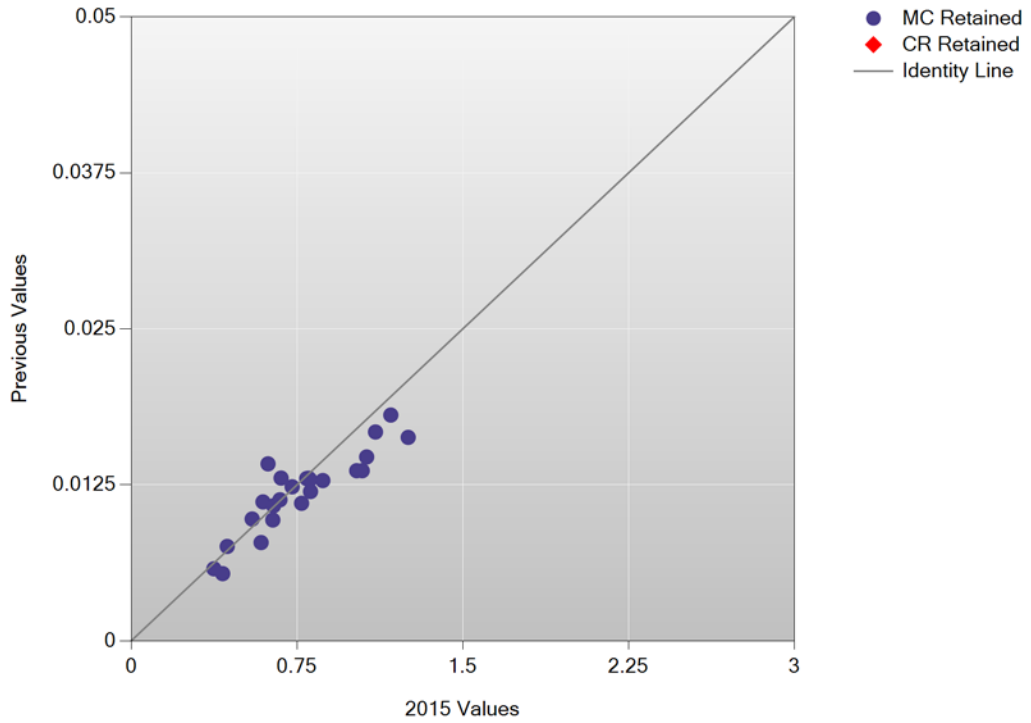


Figure O-3. 2014–15 OCCT: Science Grade 5

Top: *a*-Plot Bottom: *b*-Plot

A/A Plot: Science Grade 5



B/B Plot: Science Grade 5

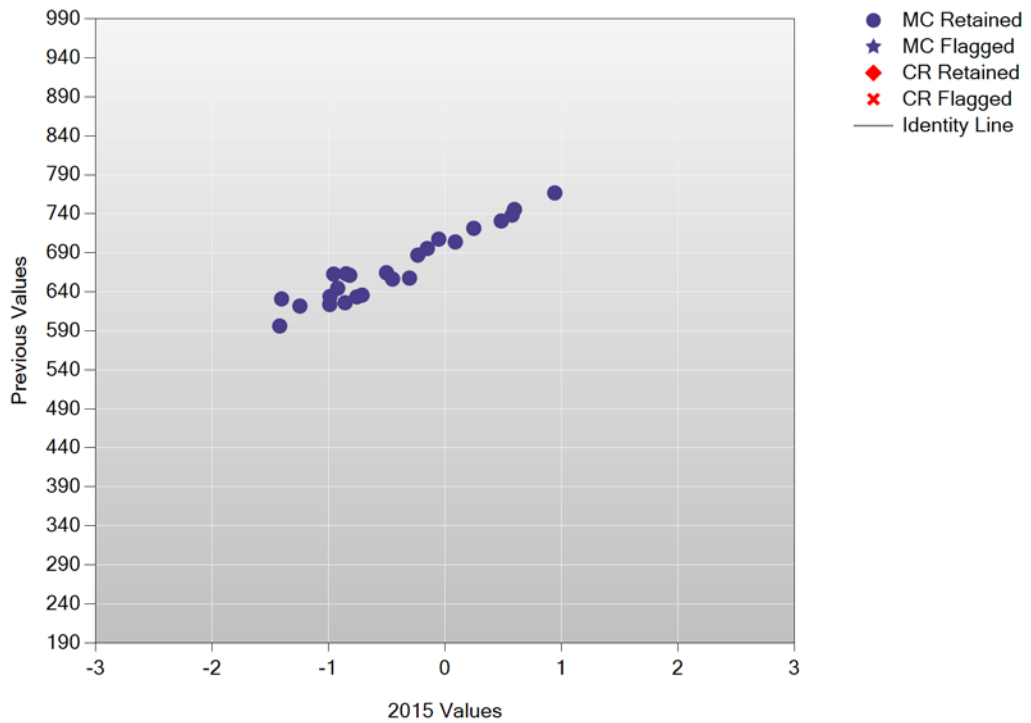
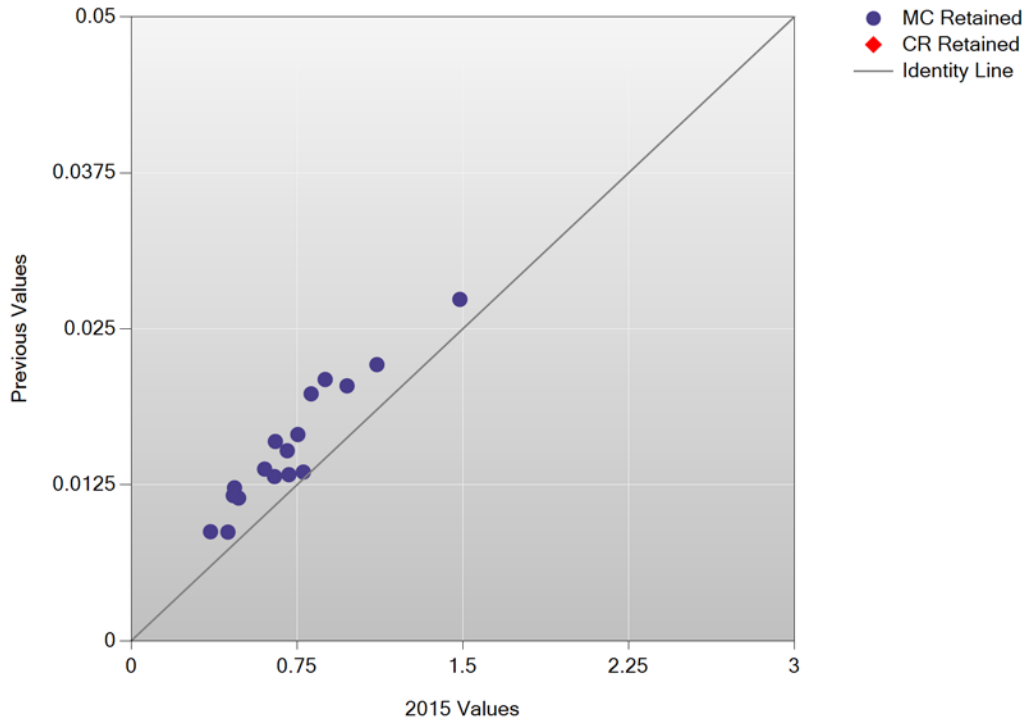


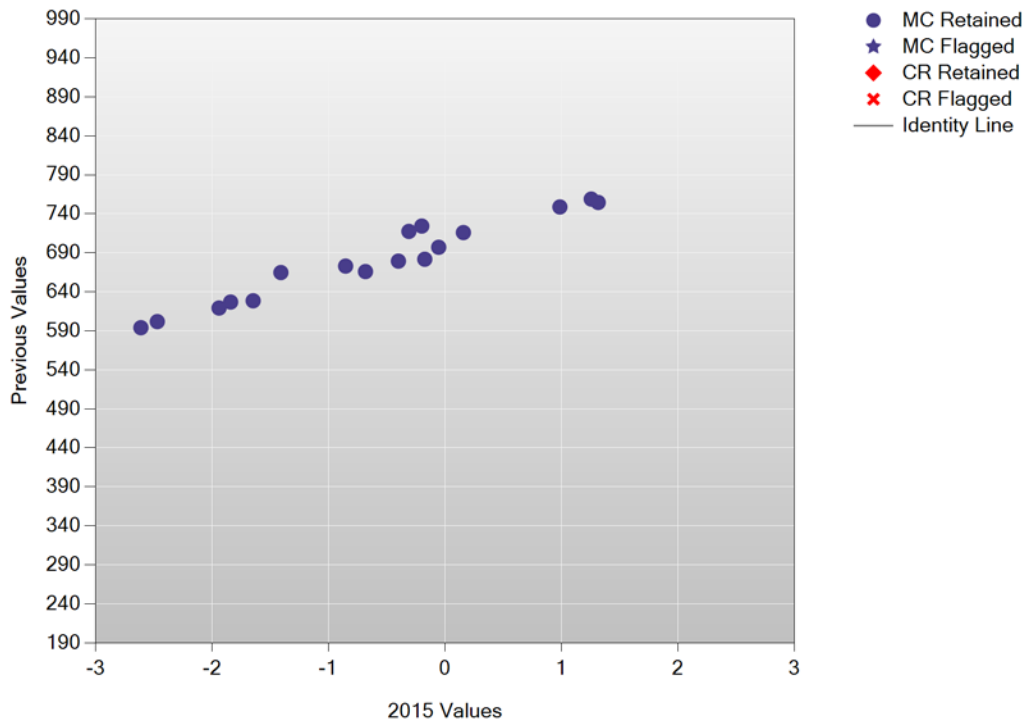
Figure O-4. 2014–15 OCCT: Social Studies Grade 8

Top:  $\alpha$ -Plot Bottom:  $b$ -Plot

A/A Plot: Science Grade 8



B/B Plot: Science Grade 8





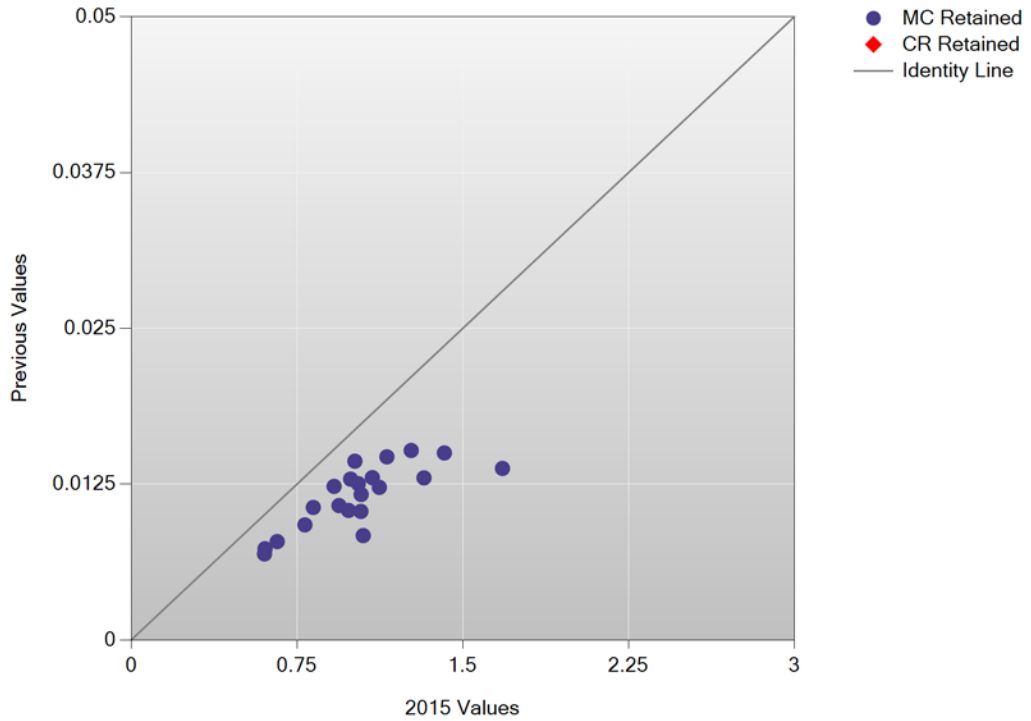
# APPENDIX P—A-PLOTS AND B-PLOTS-POST-EQUATED CHECK



Figure P-1. 2014–15 OCCT: Mathematics Grade 3 Plots

Top:  $\alpha$ -Plot Bottom:  $b$ -Plot

A/A Plot: Mathematics Grade 3



B/B Plot: Mathematics Grade 3

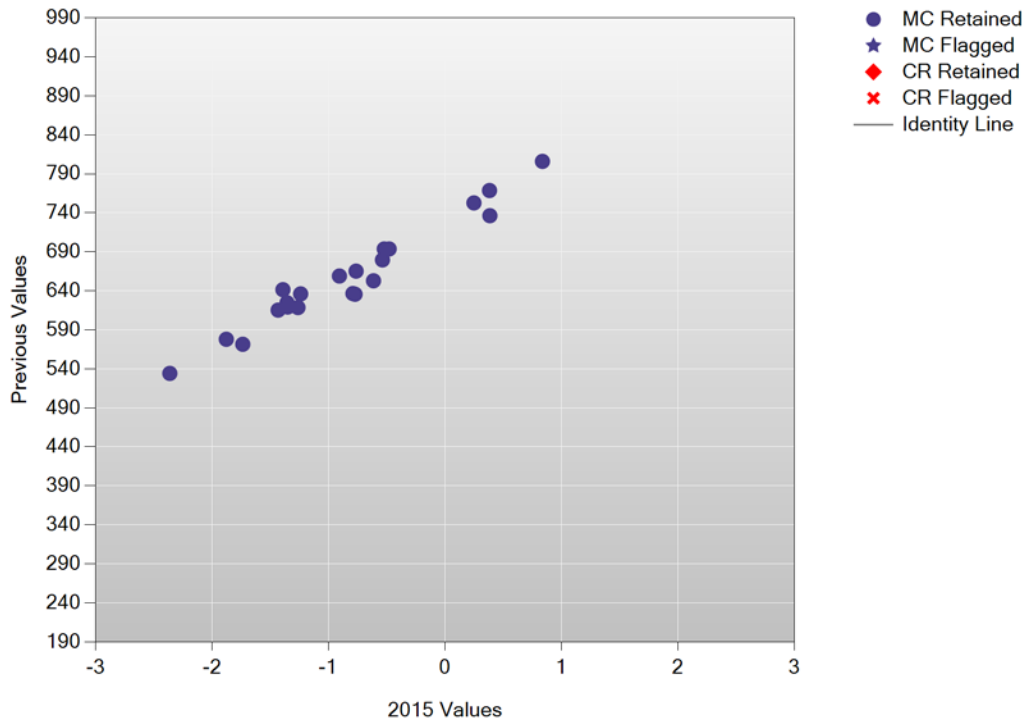
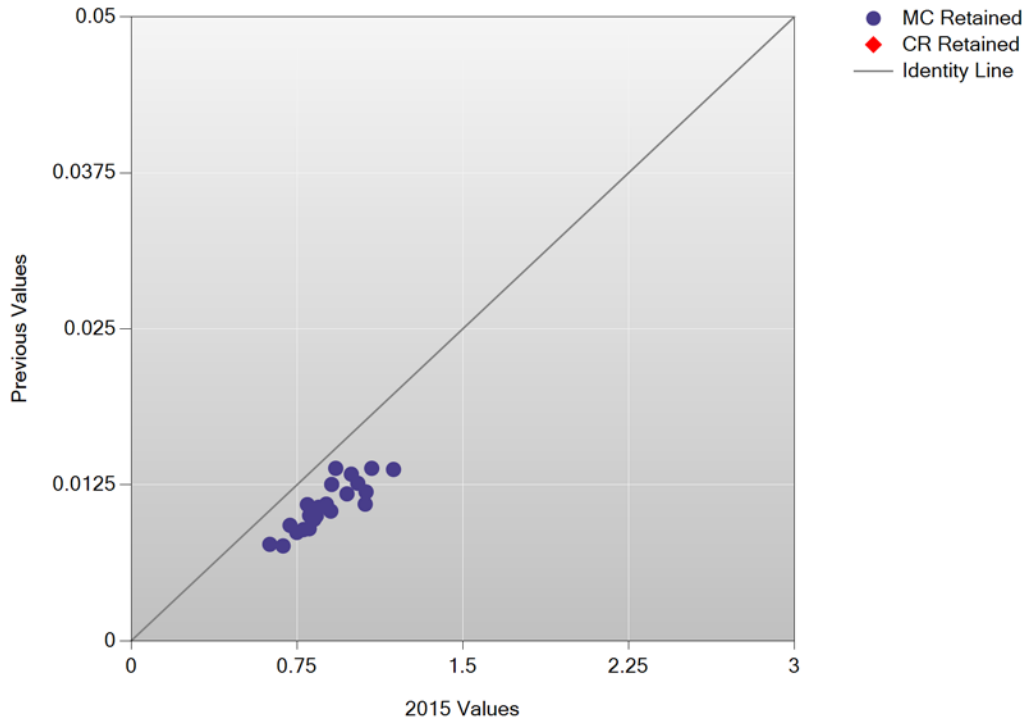


Figure P-2. 2014–15 OCCT: Mathematics Grade 4 Plots

Top:  $\alpha$ -Plot Bottom:  $b$ -Plot

A/A Plot: Mathematics Grade 4



B/B Plot: Mathematics Grade 4

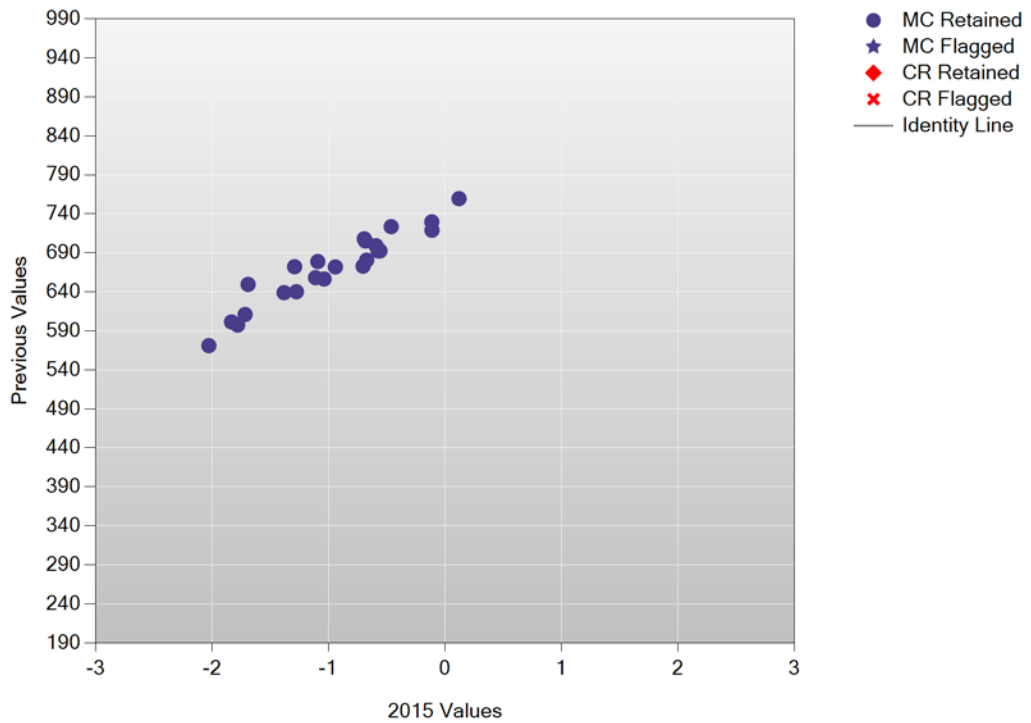
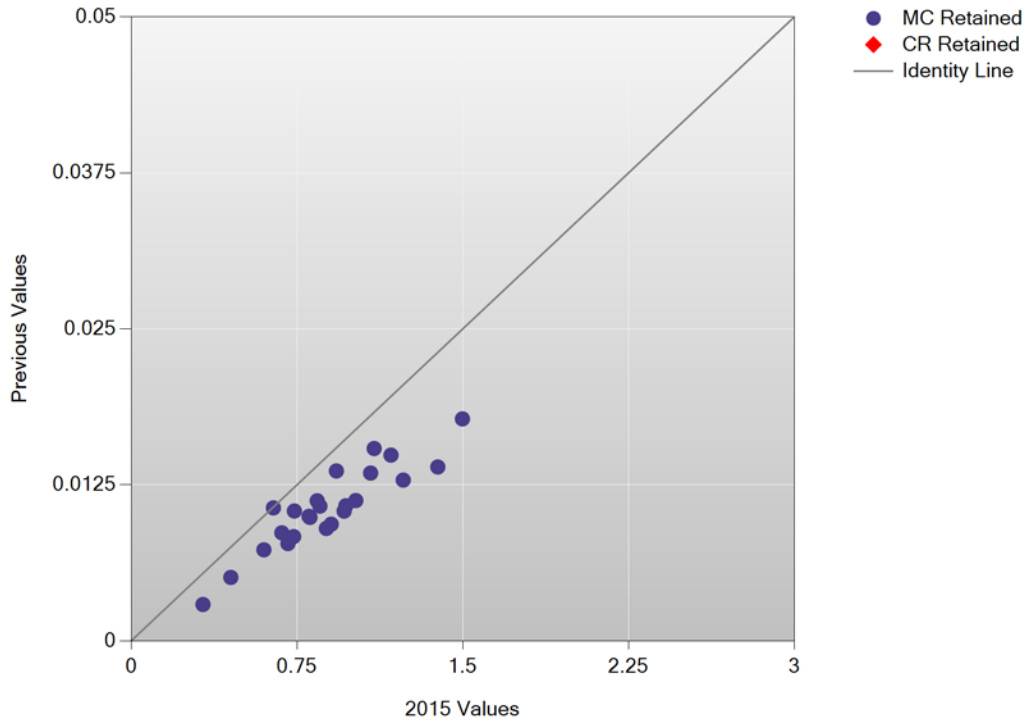


Figure P-3. 2014–15 OCCT: Mathematics Grade 5 Plots

Top:  $\alpha$ -Plot Bottom:  $b$ -Plot

A/A Plot: Mathematics Grade 5



B/B Plot: Mathematics Grade 5

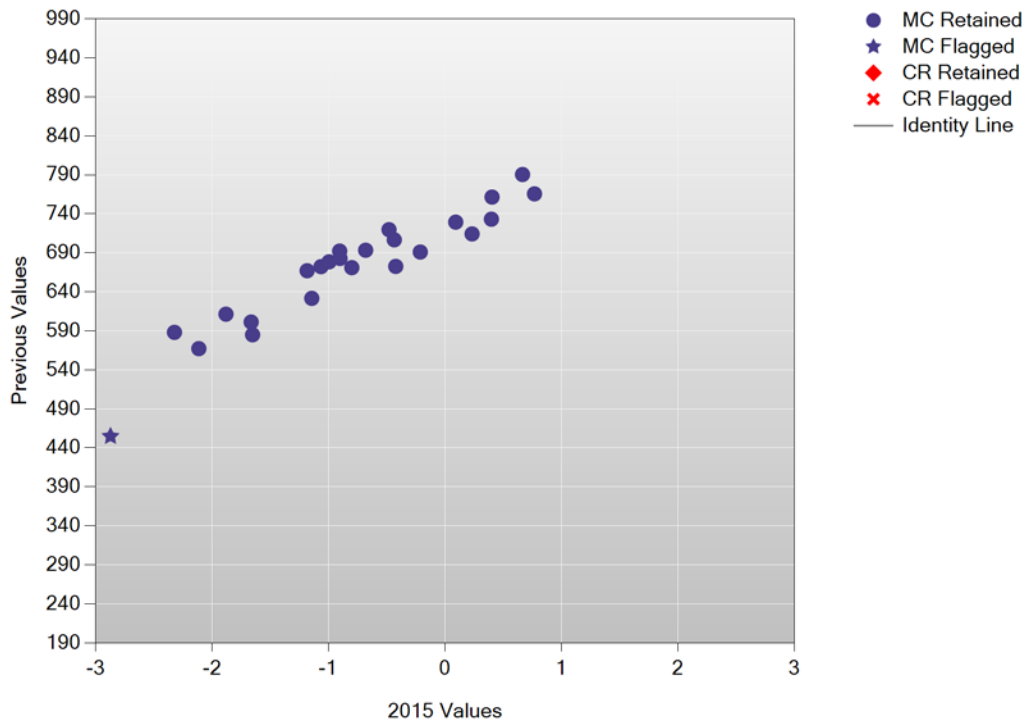
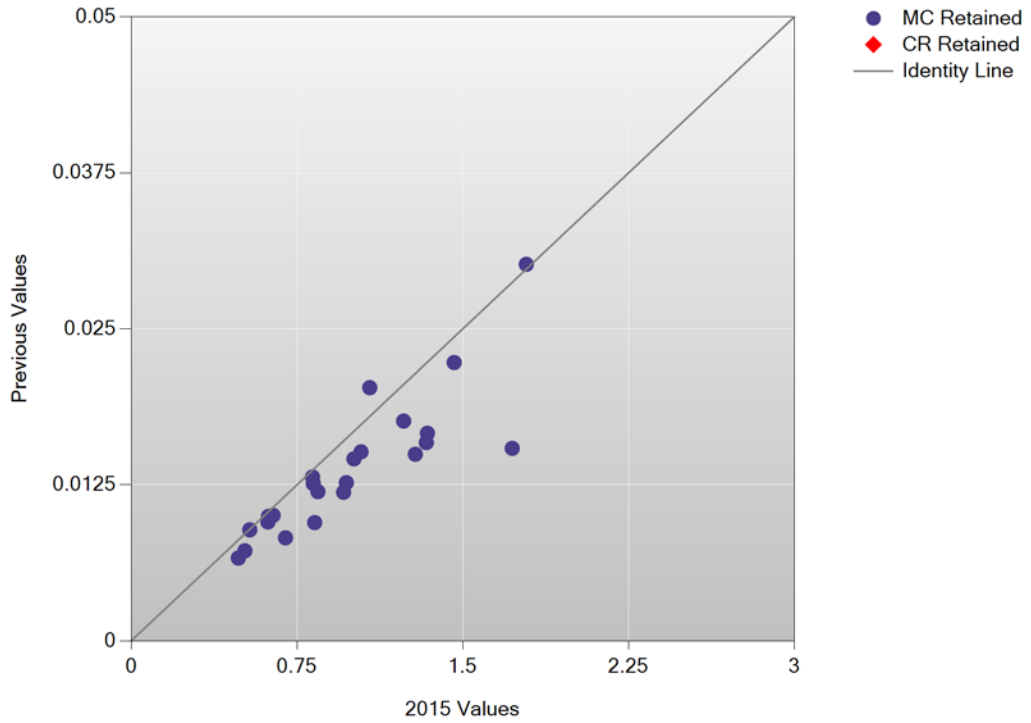


Figure P-4. 2014–15 OCCT: Mathematics Grade 6 Plots

Top:  $\alpha$ -Plot Bottom:  $b$ -Plot

A/A Plot: Mathematics Grade 6



B/B Plot: Mathematics Grade 6

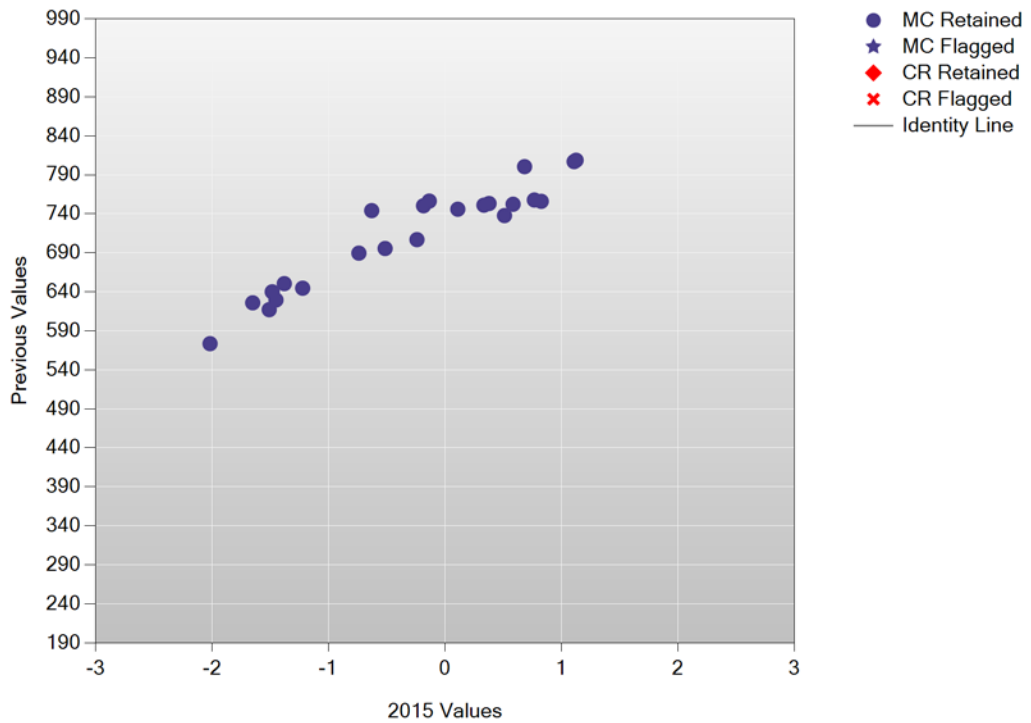
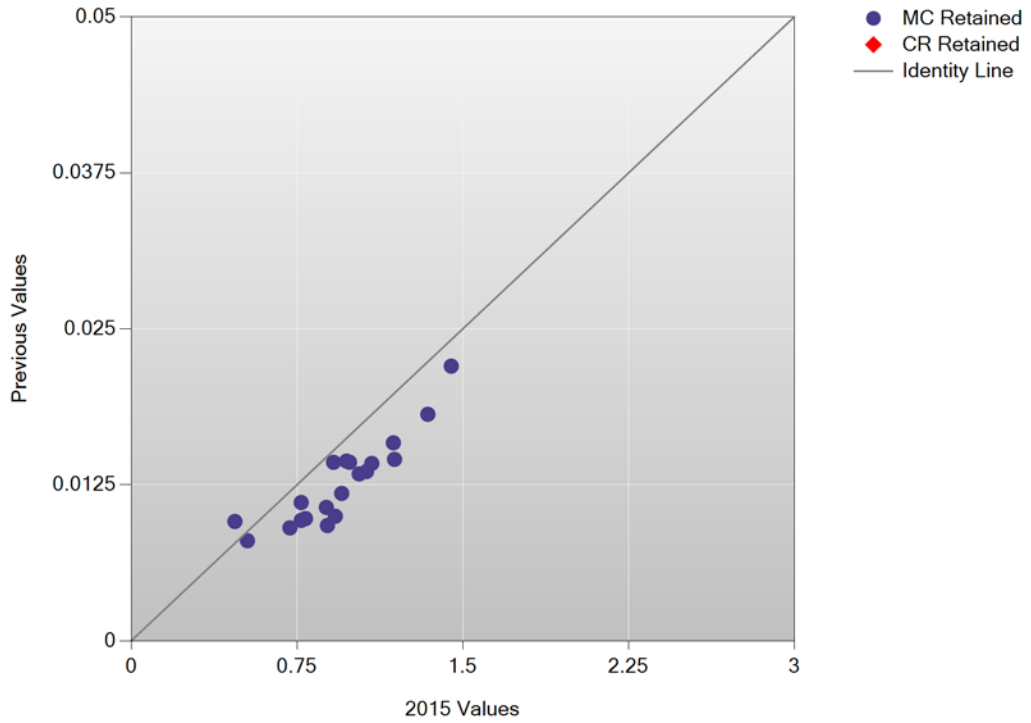


Figure P-5. 2014–15 OCCT: Mathematics Grade 7 Plots

Top:  $\alpha$ -Plot Bottom:  $b$ -Plot

A/A Plot: Mathematics Grade 7



B/B Plot: Mathematics Grade 7

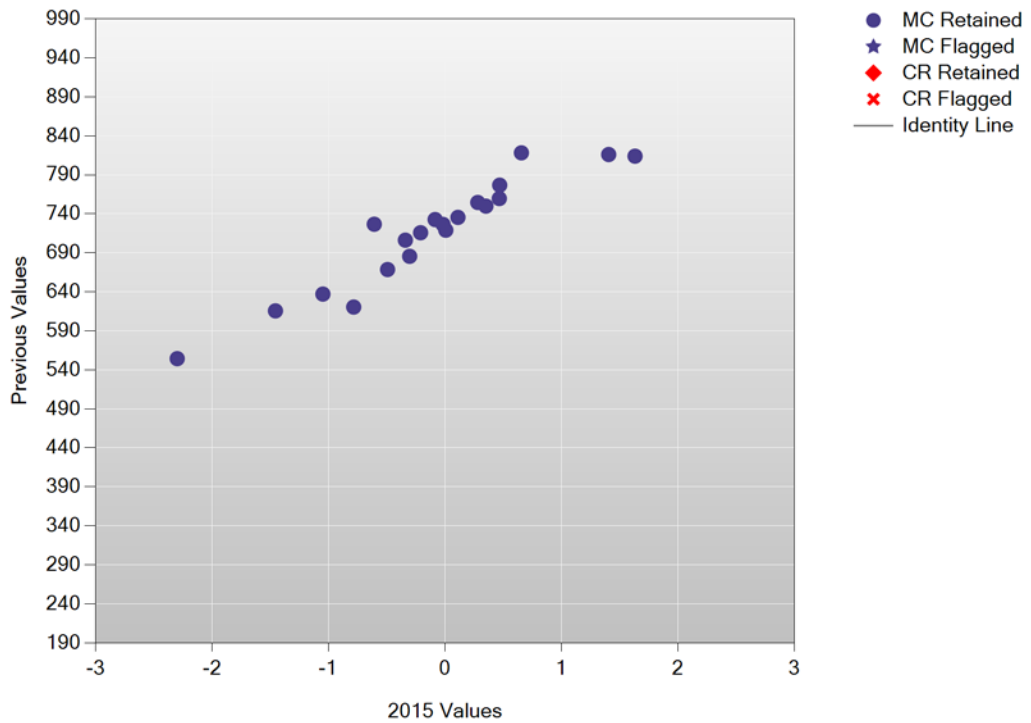
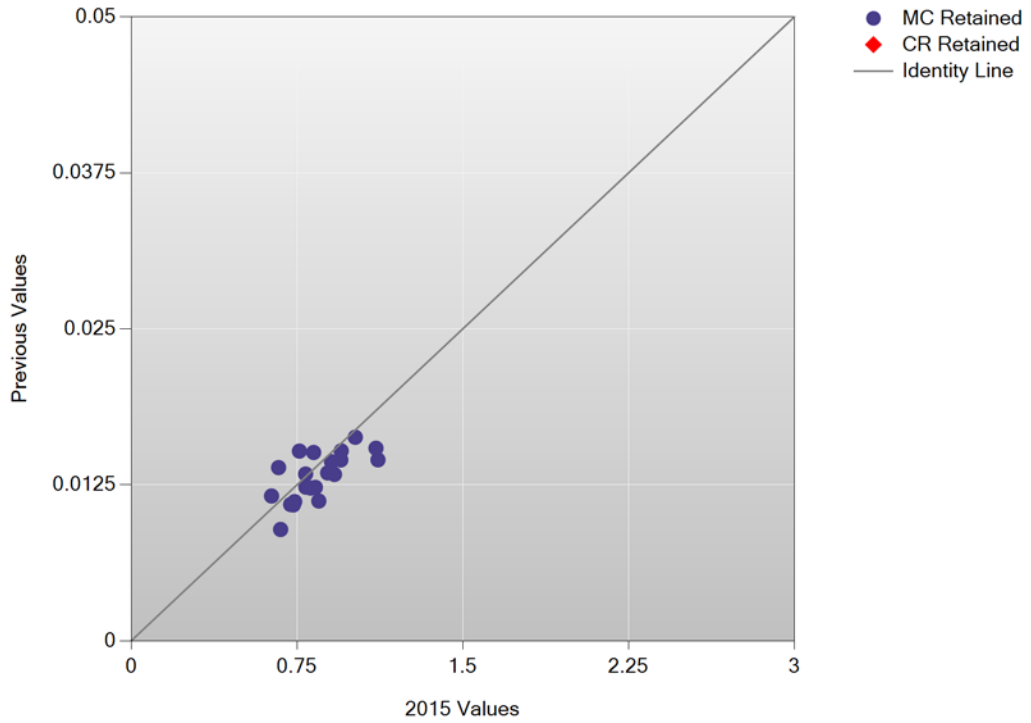


Figure P-6. 2014–15 OCCT: Mathematics Grade 8 Plots

Top:  $\alpha$ -Plot Bottom:  $b$ -Plot

A/A Plot: Mathematics Grade 8



B/B Plot: Mathematics Grade 8

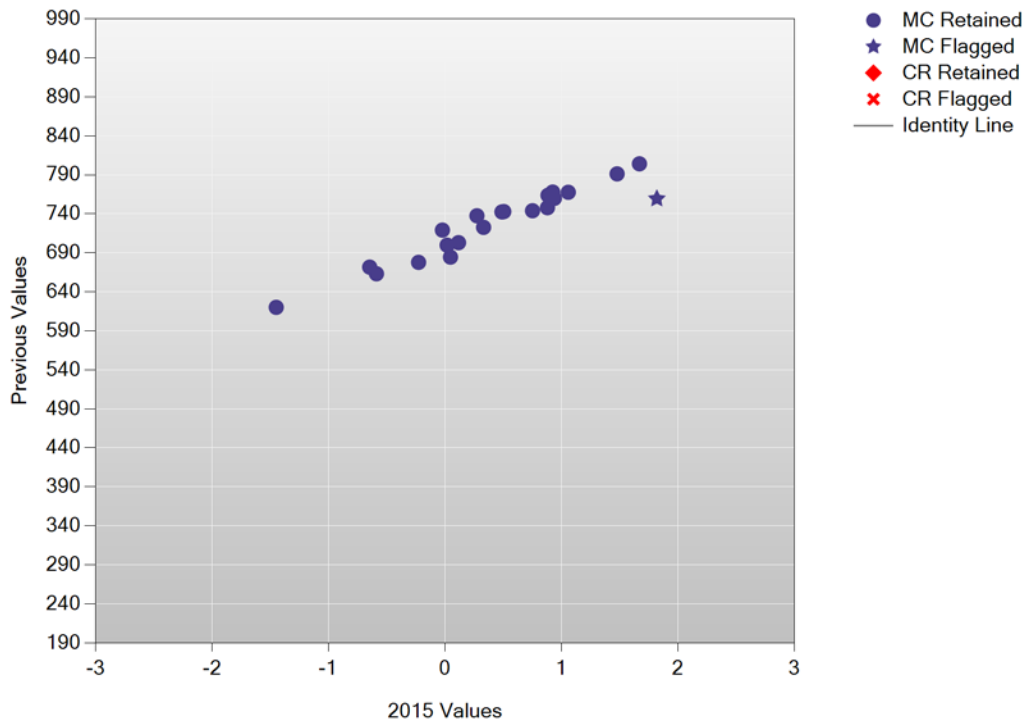
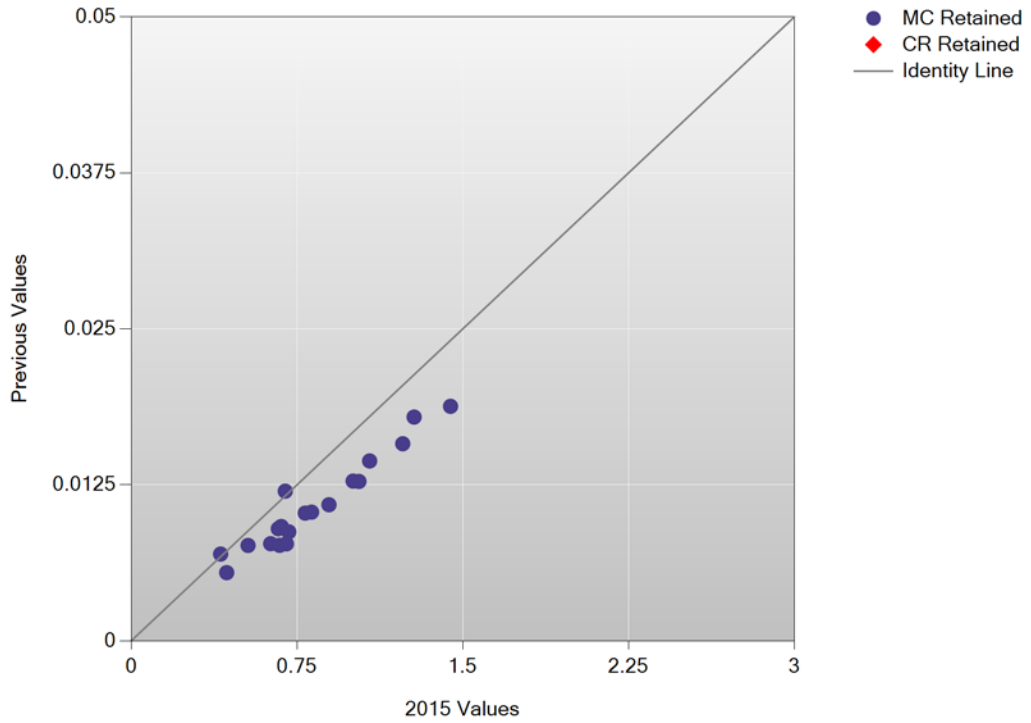




Figure P-7. 2014–15 OCCT: Reading Grade 3 Plots

Top:  $\alpha$ -Plot Bottom:  $b$ -Plot

A/A Plot: Reading Grade 3



B/B Plot: Reading Grade 3

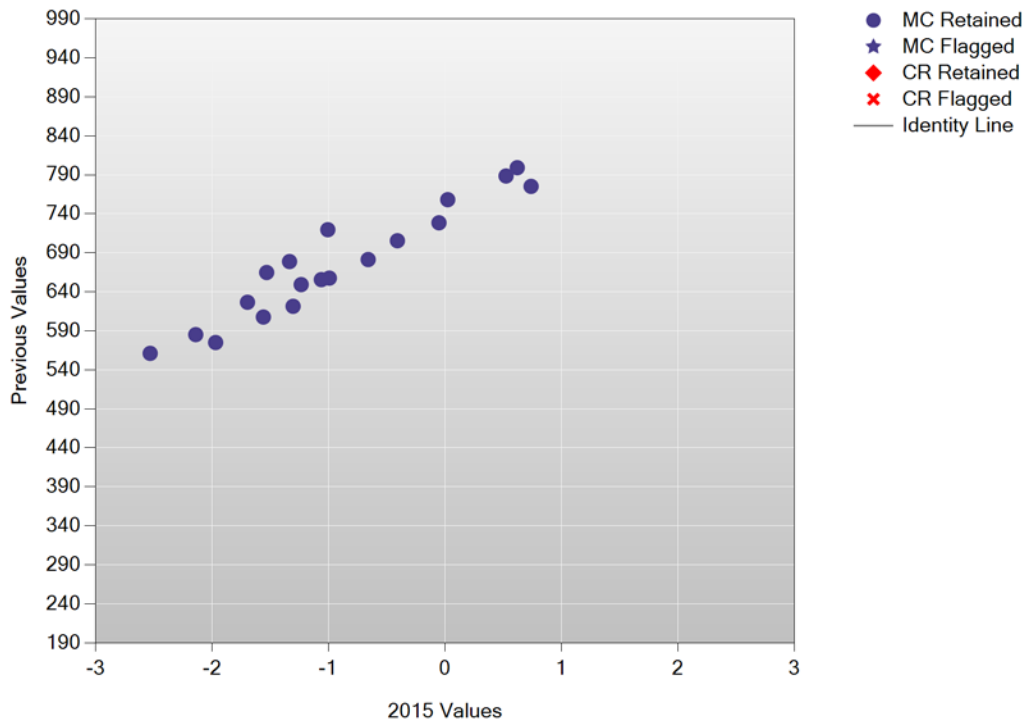
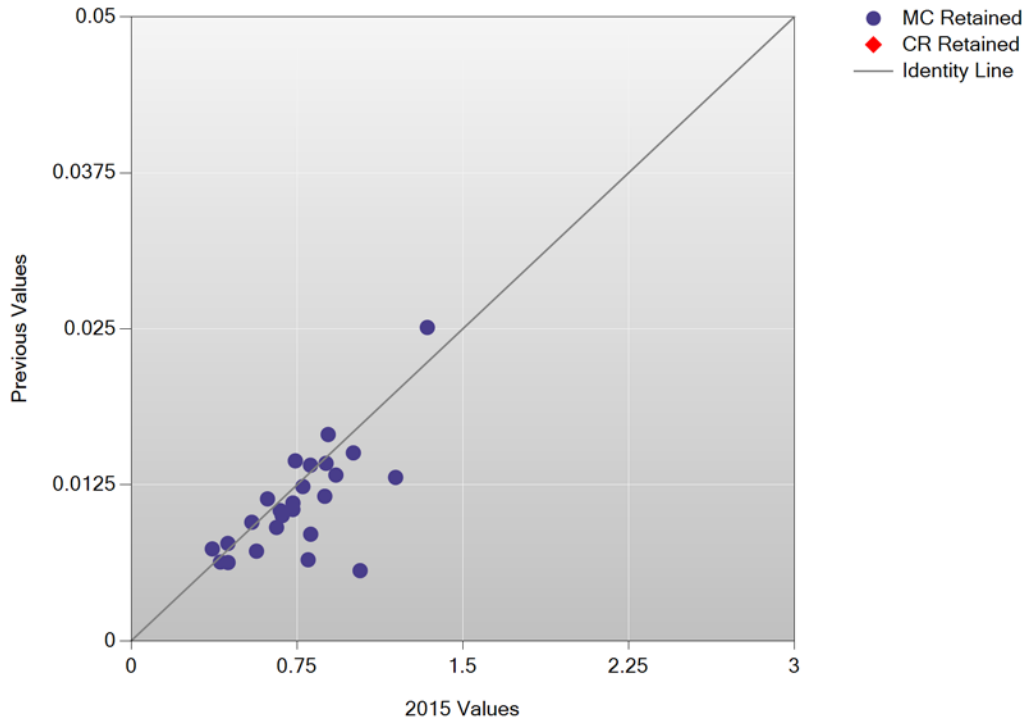


Figure P-8. 2014–15 OCCT: Reading Grade 4 Plots

Top:  $\alpha$ -Plot Bottom:  $b$ -Plot

A/A Plot: Reading Grade 4



B/B Plot: Reading Grade 4

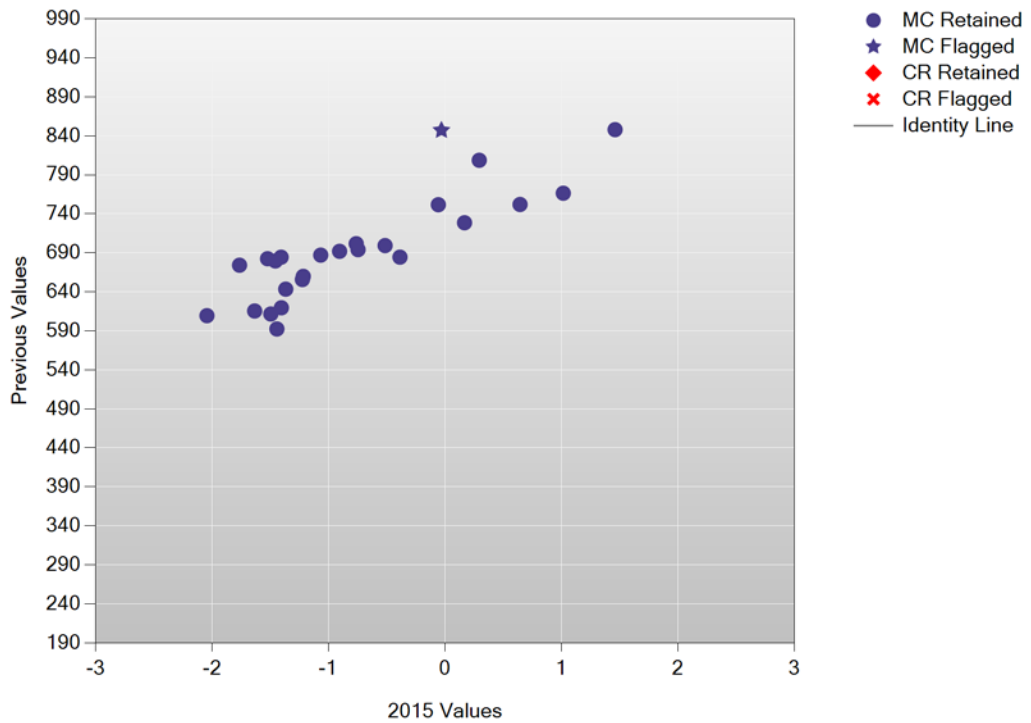
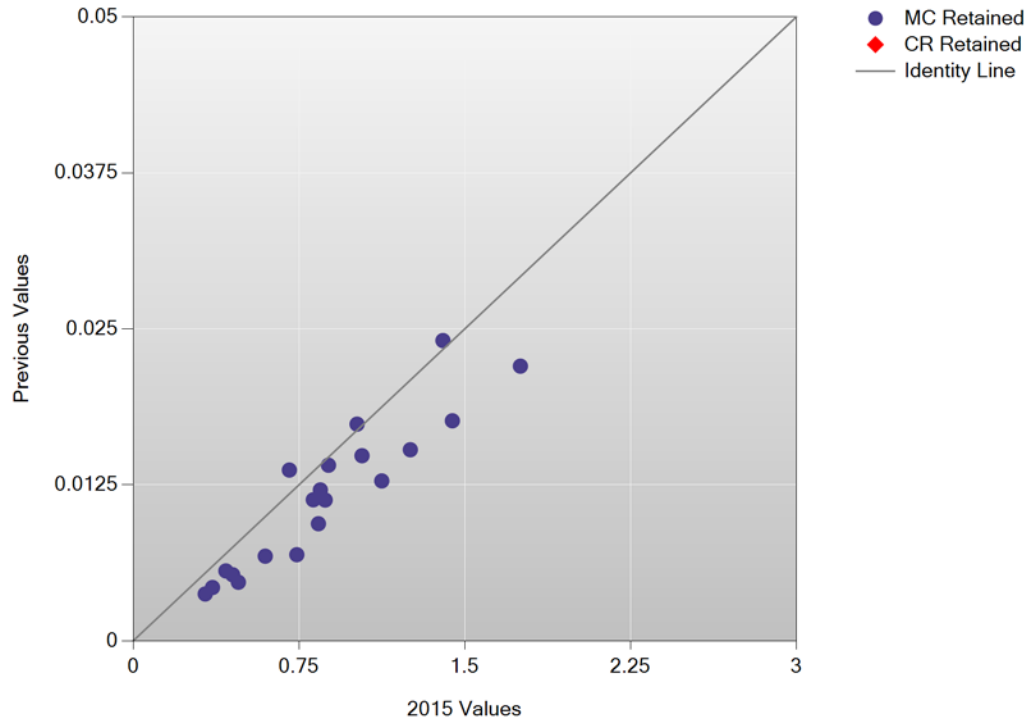


Figure P-9. 2014–15 OCCT: Reading Grade 5 Plots

Top:  $\alpha$ -Plot Bottom:  $b$ -Plot

A/A Plot: Reading Grade 5



B/B Plot: Reading Grade 5

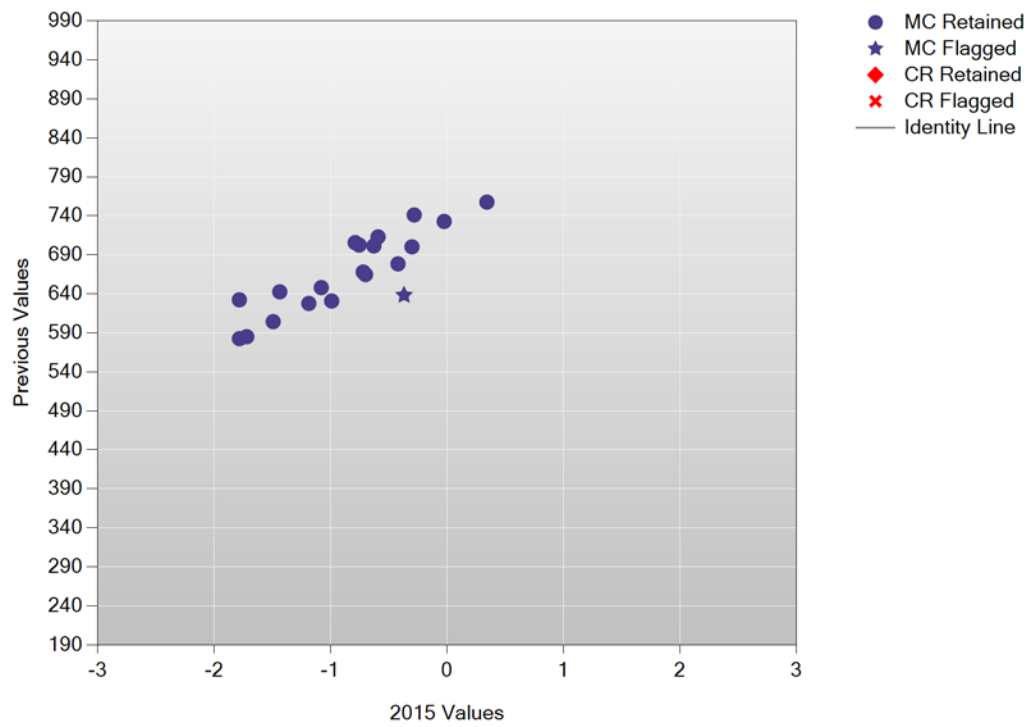
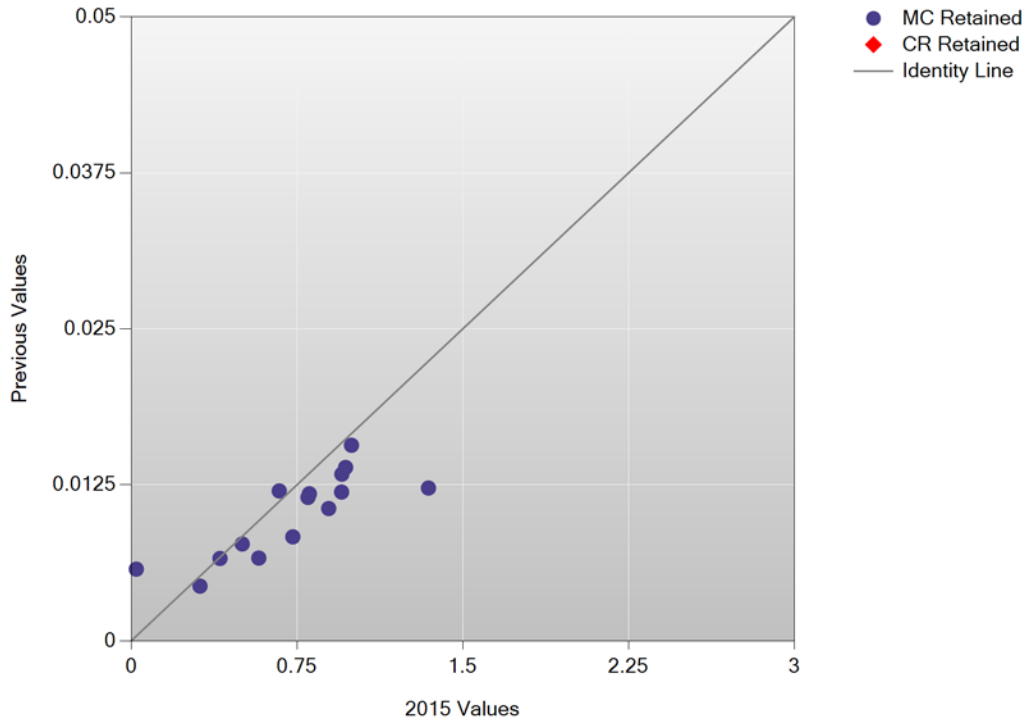


Figure P-10. 2014–15 OCCT: Reading Grade 6 Plots

Top:  $\alpha$ -Plot Bottom:  $b$ -Plot

A/A Plot: Reading Grade 6



B/B Plot: Reading Grade 6

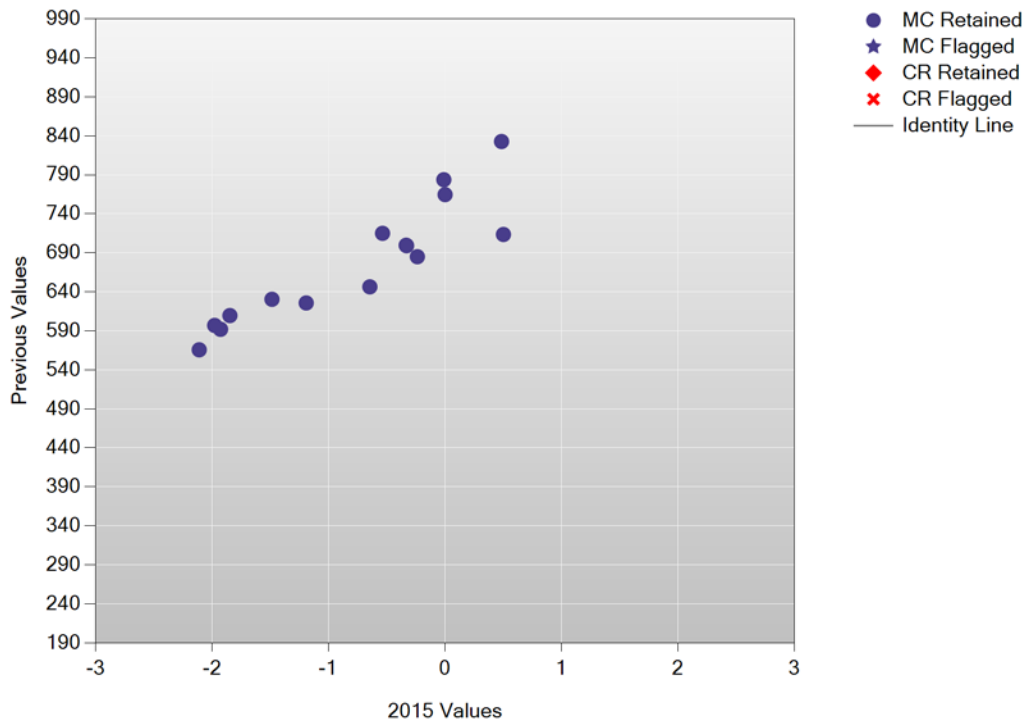
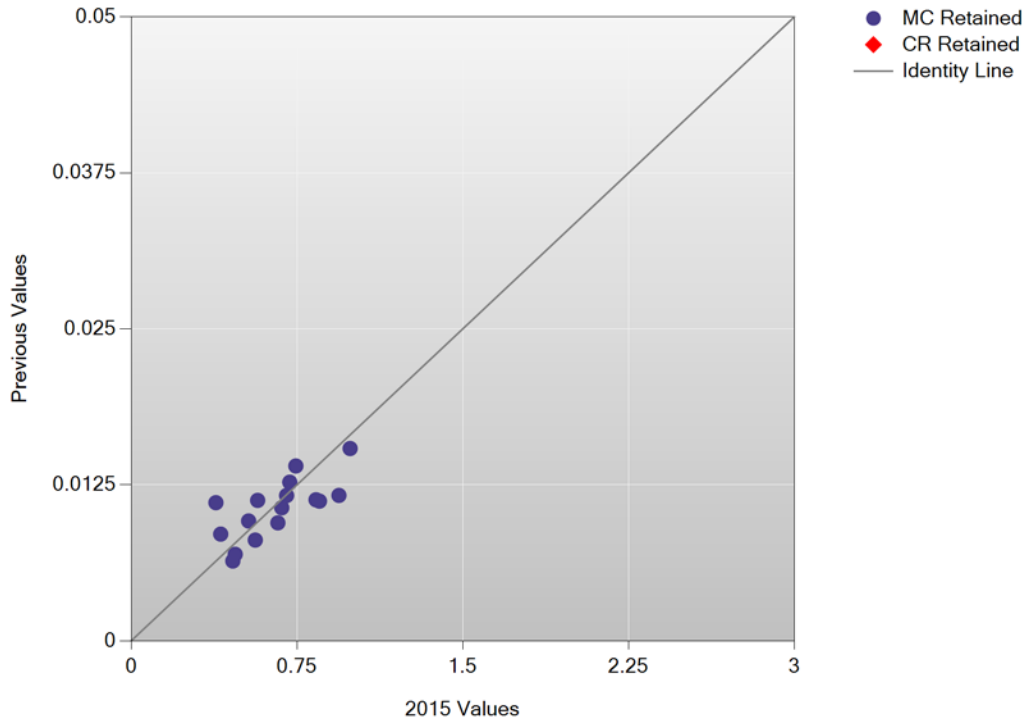


Figure P-11. 2014–15 OCCT: Reading Grade 7 Plots

Top:  $\alpha$ -Plot Bottom:  $b$ -Plot

A/A Plot: Reading Grade 7



B/B Plot: Reading Grade 7

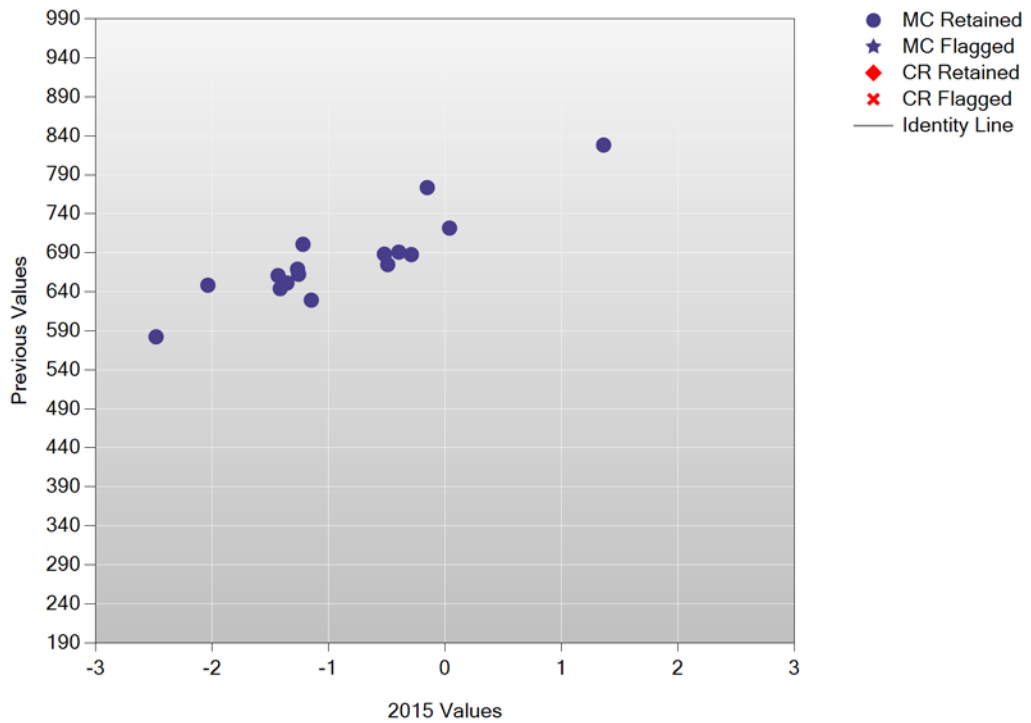
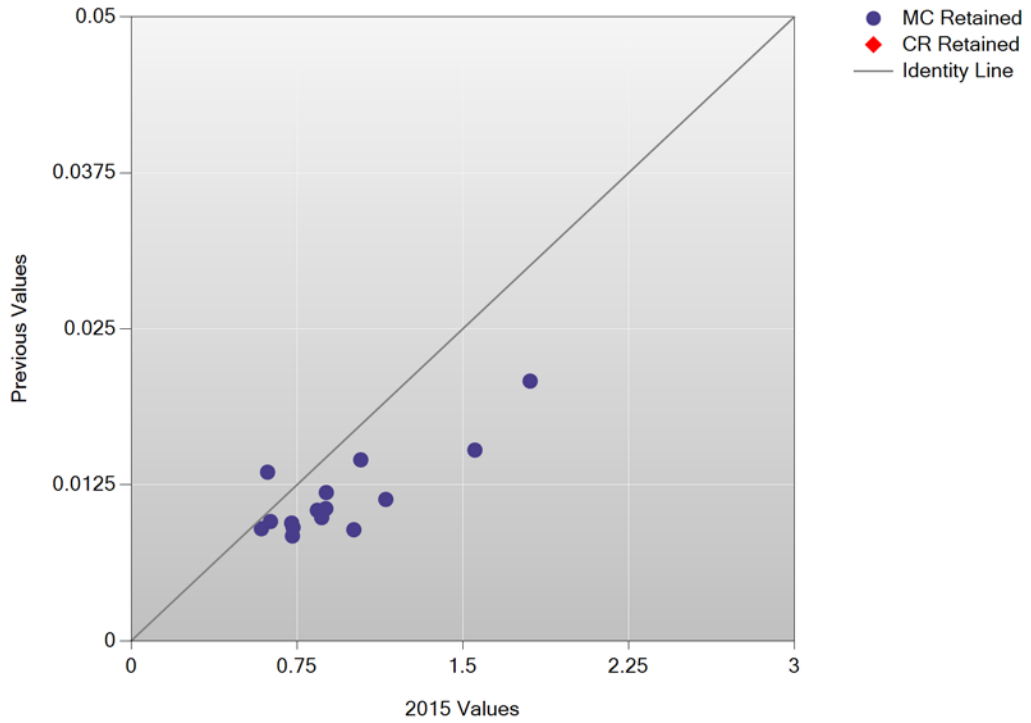


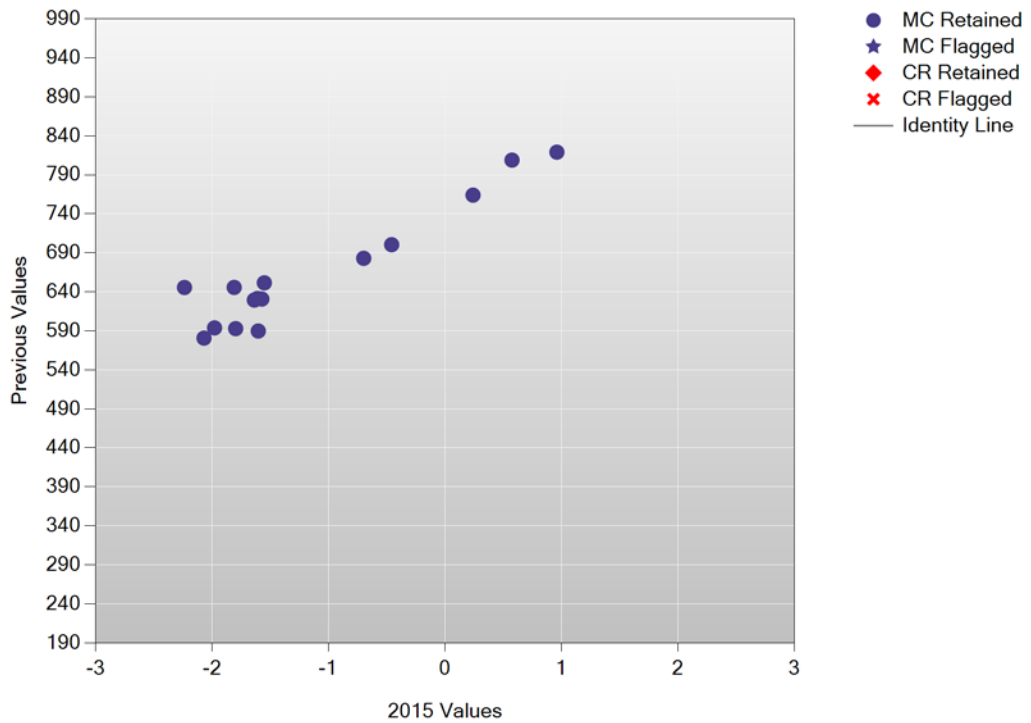
Figure P-12. 2014–15 OCCT: Reading Grade 8 Plots

Top:  $\alpha$ -Plot Bottom:  $b$ -Plot

A/A Plot: Reading Grade 8



B/B Plot: Reading Grade 8



# APPENDIX Q—SCORE DISTRIBUTIONS





**Table Q-1. 2014–15 OCCT: Performance Level Distributions  
by Grade—Mathematics**

<i>Grade</i>	<i>Performance Level</i>	<i>Percent in Level 2014-15</i>
3	4	22.39
	3	40.10
	2	21.68
	1	15.83
4	4	27.13
	3	44.87
	2	17.82
	1	10.18
5	4	25.19
	3	42.26
	2	18.37
	1	14.18
6	4	19.33
	3	47.19
	2	14.55
	1	18.93
7	4	19.09
	3	46.45
	2	11.23
	1	23.23
8	4	10.92
	3	42.49
	2	25.85
	1	20.74

**Table Q-2. 2014–15 OCCT: Performance Level Distributions  
by Grade—Reading**

<i>Grade</i>	<i>Performance Level</i>	<i>Percent in Level 2014-15</i>
3	4	2.50
	3	66.96
	2	15.91
	1	14.63
4	4	4.28
	3	65.58
	2	15.45
	1	14.69
5	4	11.27
	3	54.40
	2	18.26
	1	16.07
6	4	3.77
	3	59.60

continued

<i>Grade</i>	<i>Performance Level</i>	<i>Percent in Level 2014-15</i>
6	2	18.88
	1	17.75
7	4	15.90
	3	55.65
	2	11.73
	1	16.72
8	4	15.68
	3	58.97
	2	12.42
	1	12.93

**Table Q-3. 2014–15 OCCT: Performance Level Distributions  
by Grade—Science**

<i>Grade</i>	<i>Performance Level</i>	<i>Percent in Level 2014-15</i>
5	4	18.58
	3	34.90
	2	24.16
	1	22.36
8	4	16.70
	3	35.34
	2	26.80
	1	21.16

**Table Q-4. 2014–15 OCCT: Performance Level Distributions  
by Grade—Social Studies**

<i>Grade</i>	<i>Performance Level</i>	<i>Percent in Level 2014-15</i>
5	4	42.73
	3	30.25
	2	14.33
	1	12.69
7	4	35.30
	3	27.33
	2	19.60
	1	17.77
8	4	32.11
	3	29.48
	2	17.95
	1	20.46

**Table Q-5. 2014–15 OCCT: Performance Level Distributions  
by Grade—Writing**

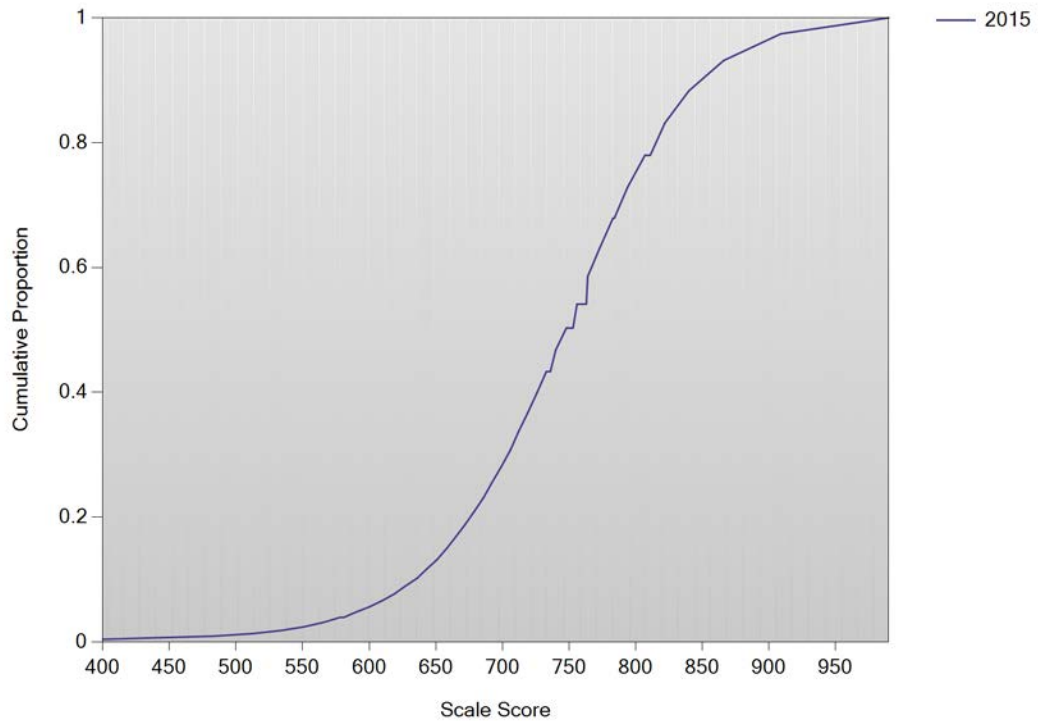
<i>Grade</i>	<i>Performance Level</i>	<i>Percent in Level 2014-15</i>
5	4	6.42
	3	40.12
	2	43.36
	1	10.10
8	4	10.24
	3	51.61
	2	21.36
	1	16.79

# APPENDIX R—CUMULATIVE SCORE DISTRIBUTIONS

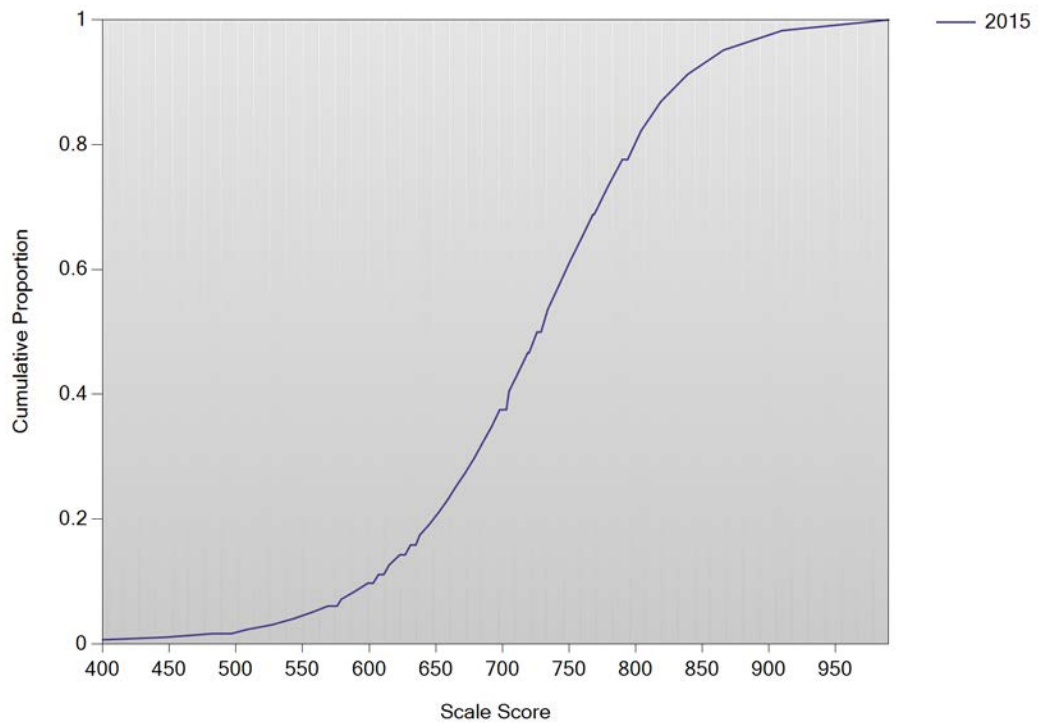


**Table R-1. 2014–15 OCCT: Cumulative Score Distribution Plots**  
**Top: Mathematics Grade 3    Bottom: Mathematics Grade 4**

**Cumulative Scale Score Distributions:**

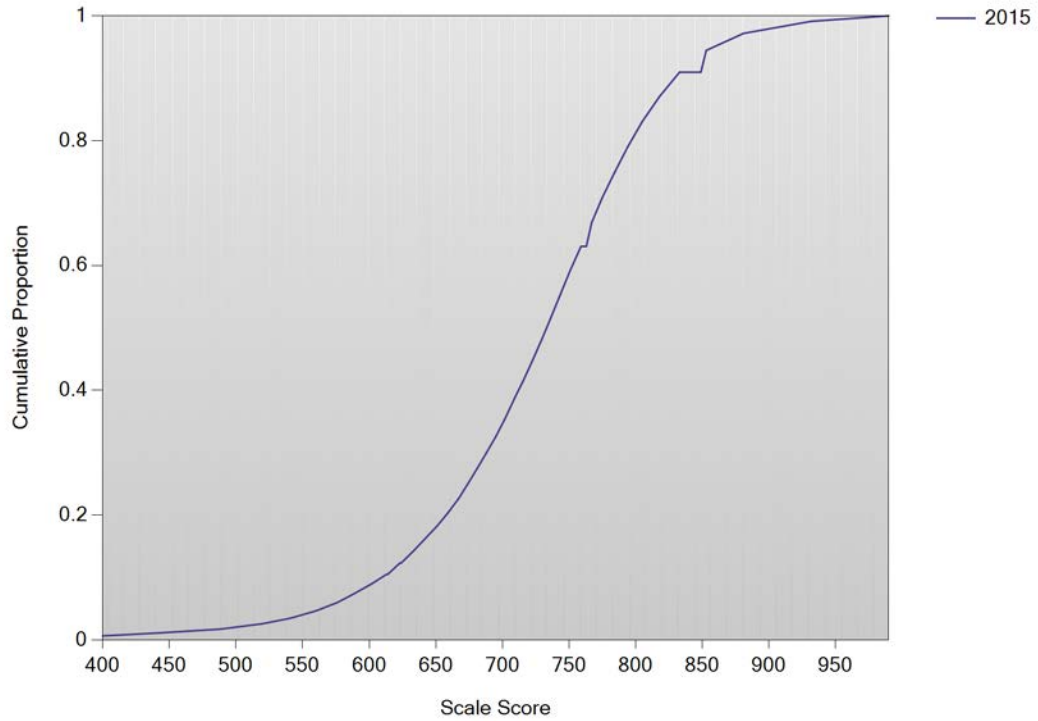


**Cumulative Scale Score Distributions:**

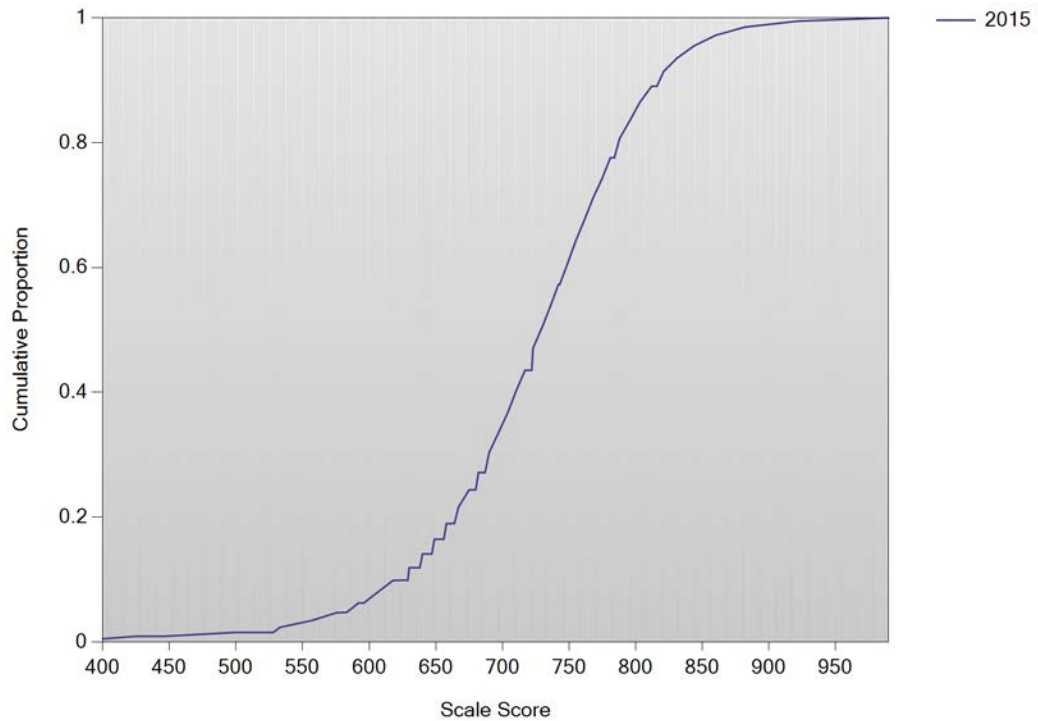


**Table R-2. 2014–15 OCCT: Cumulative Score Distribution Plots**  
**Top: Mathematics Grade 5     Bottom: Mathematics Grade 6**

**Cumulative Scale Score Distributions:**

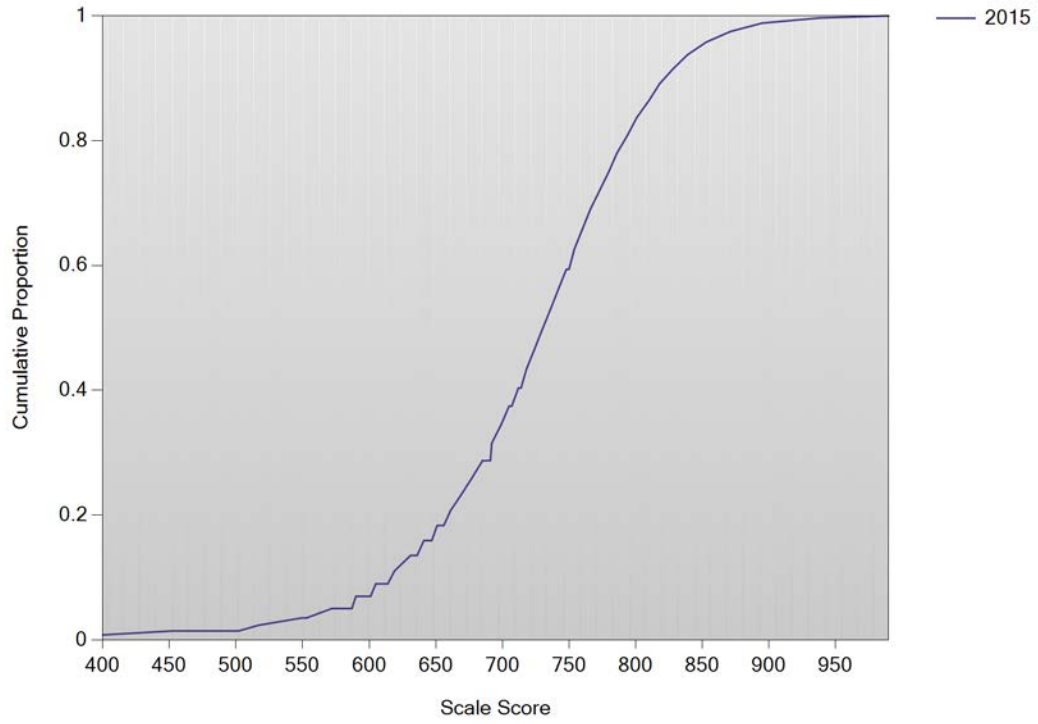


**Cumulative Scale Score Distributions:**

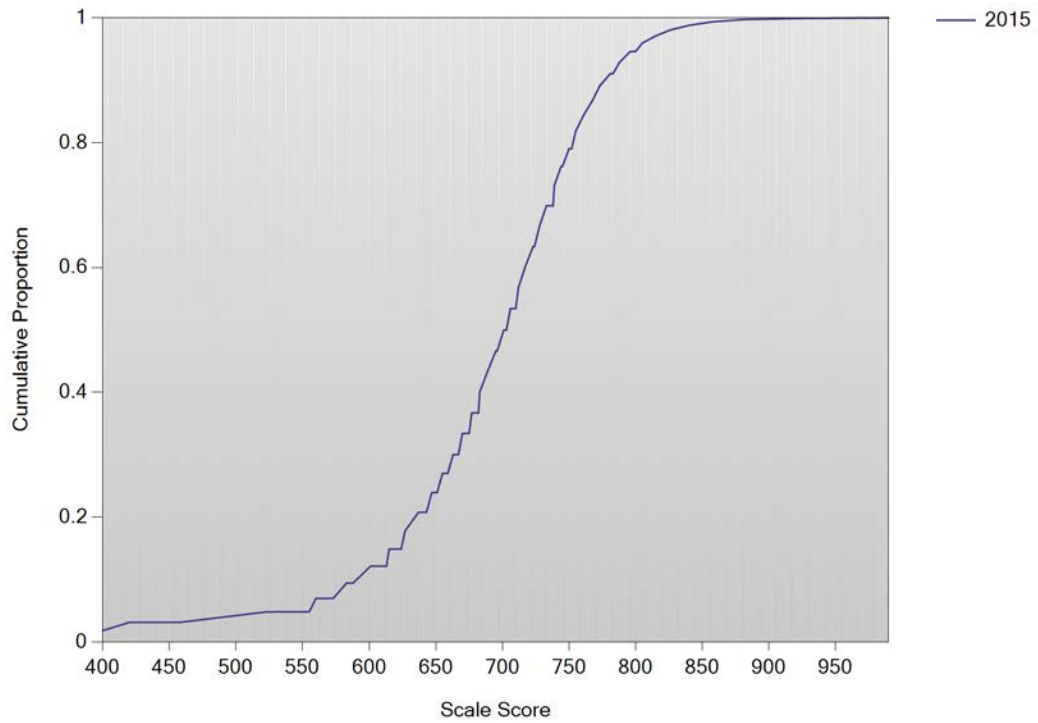


**Table R-3 2014–15 OCCT: Cumulative Score Distribution Plots**  
**Top: Mathematics Grade 7    Bottom: Mathematics Grade 8**

**Cumulative Scale Score Distributions:**



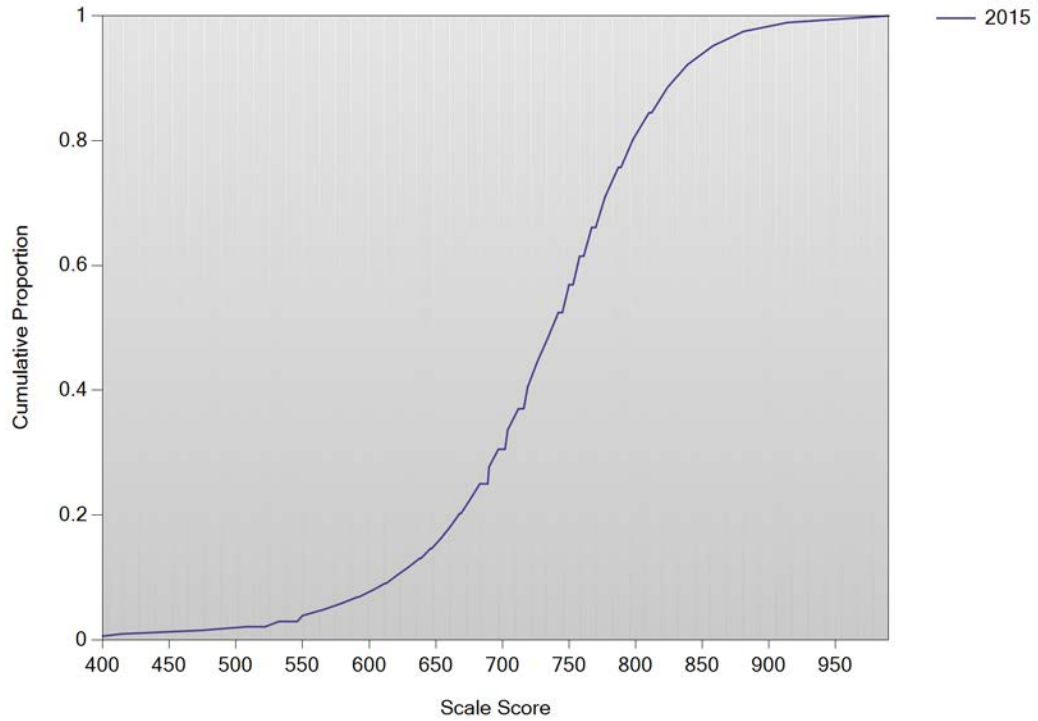
**Cumulative Scale Score Distributions:**



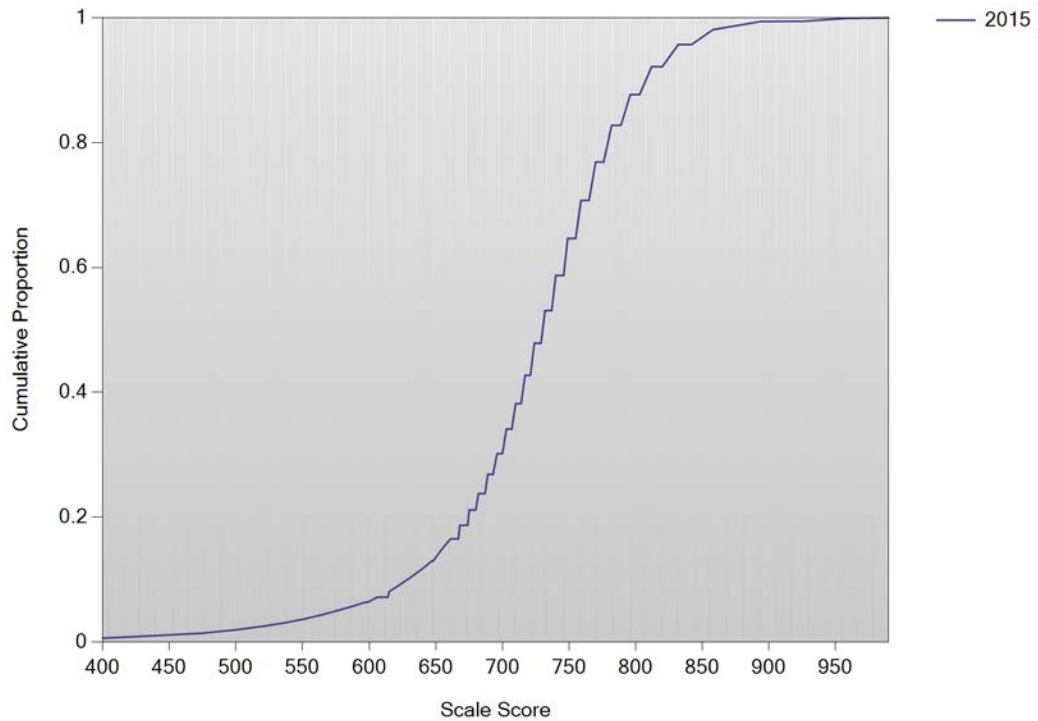


**Table R-4. 2014–15 OCCT: Cumulative Score Distribution Plots**  
**Top: Reading Grade 3**      **Bottom: Reading Grade 4**

**Cumulative Scale Score Distributions:**

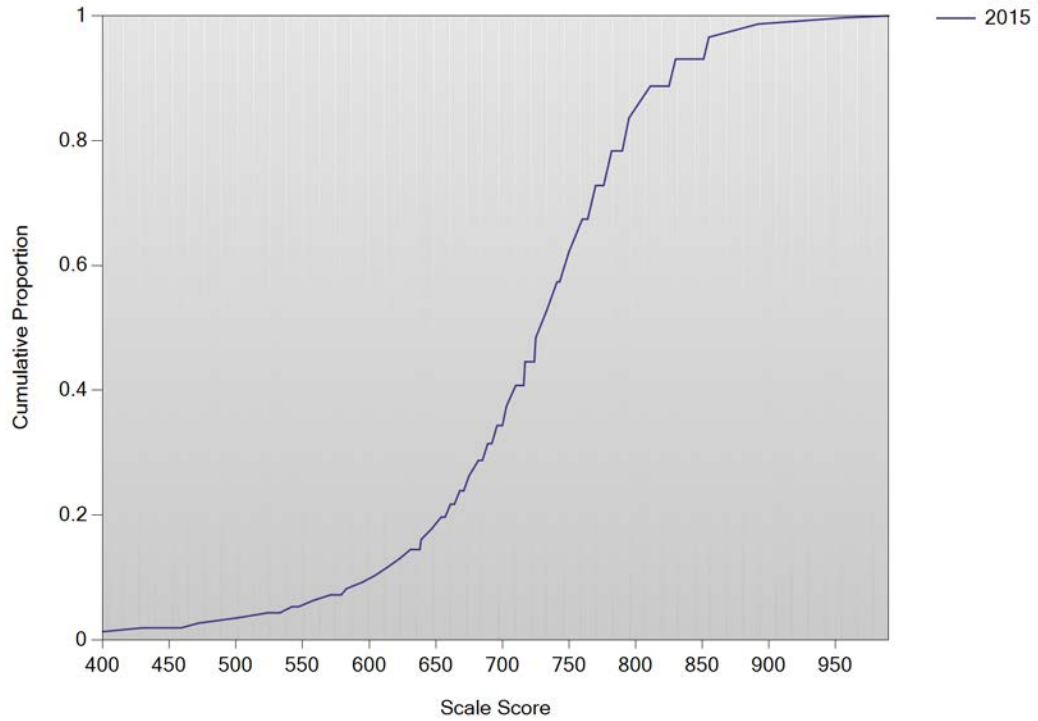


**Cumulative Scale Score Distributions:**

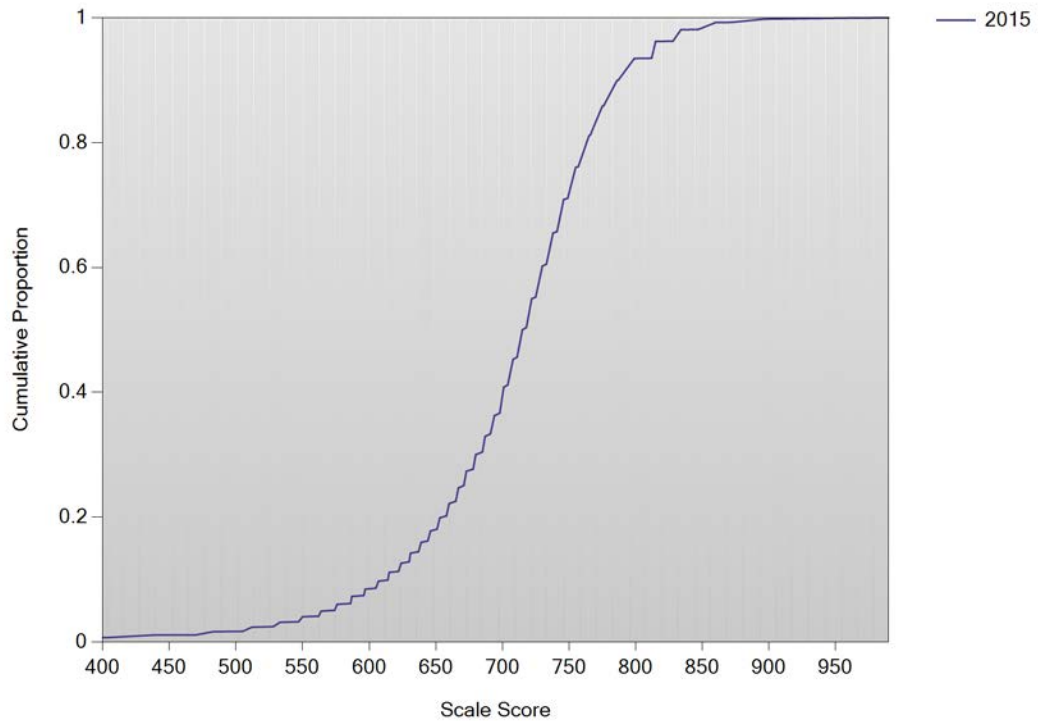


**Table R-5 2014–15 OCCT: Cumulative Score Distribution Plots**  
**Top: Reading Grade 5**      **Bottom: Reading Grade 6**

**Cumulative Scale Score Distributions:**

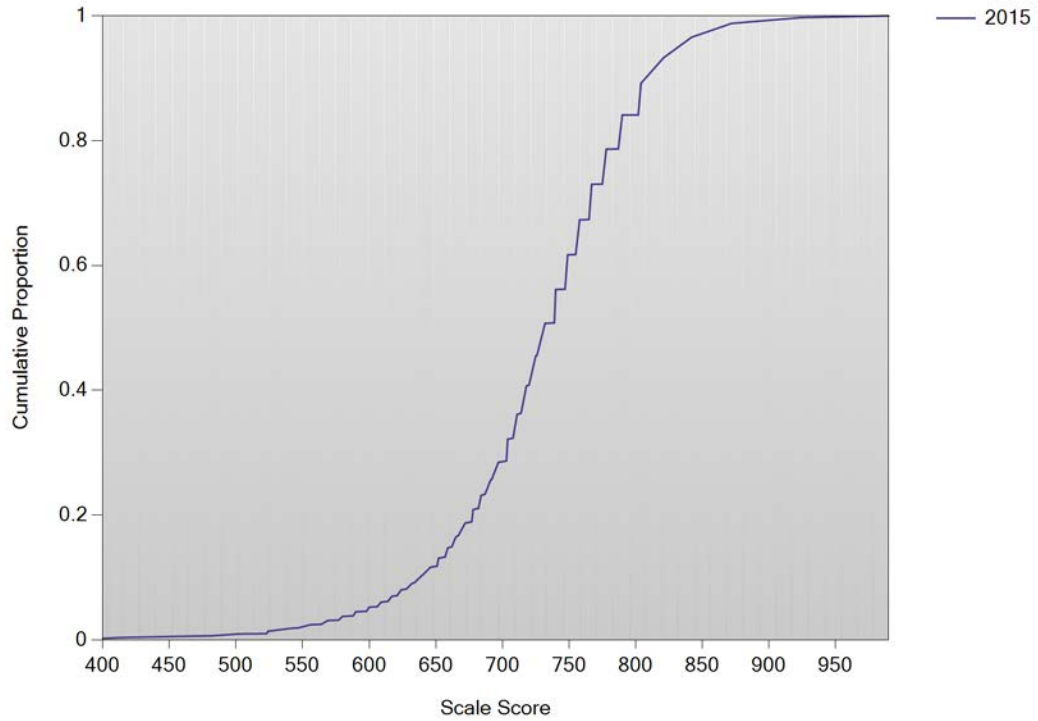


**Cumulative Scale Score Distributions:**

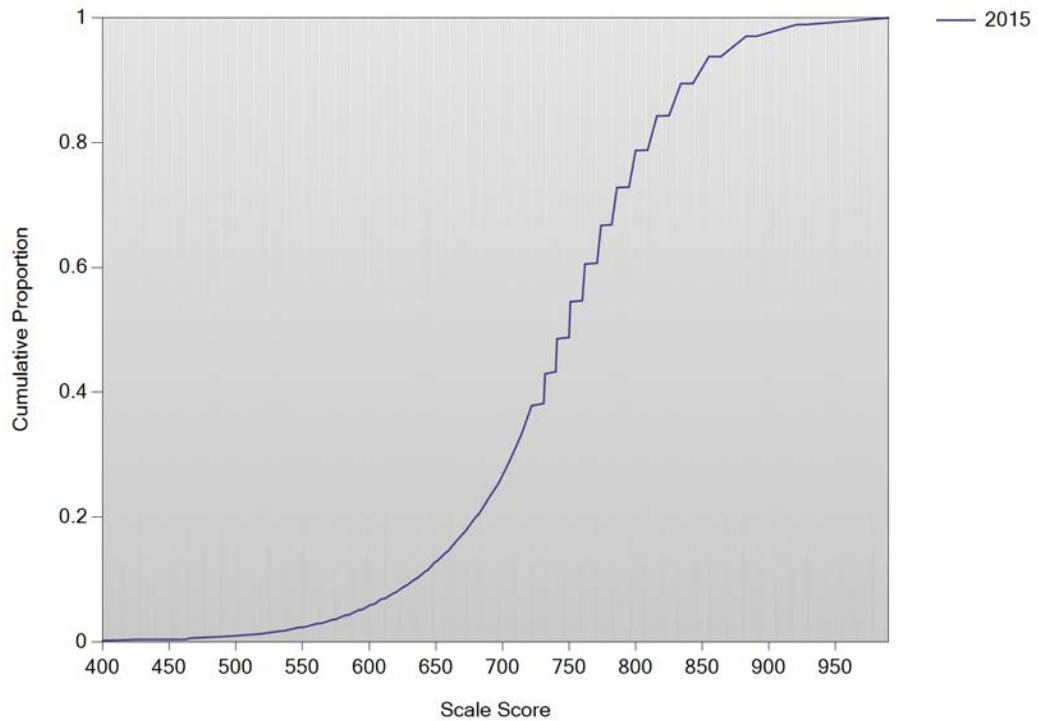


**Table R-6. 2014–15 OCCT: Cumulative Score Distribution Plots**  
**Top: Reading Grade 7**      **Bottom: Reading Grade 8**

**Cumulative Scale Score Distributions:**

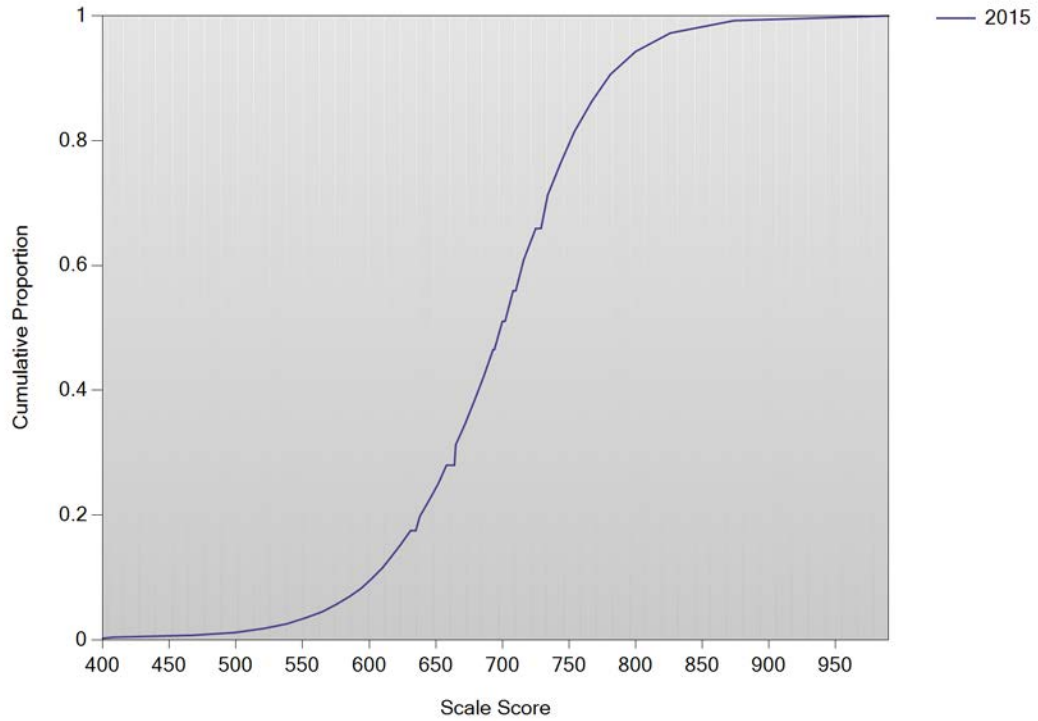


**Cumulative Scale Score Distributions:**

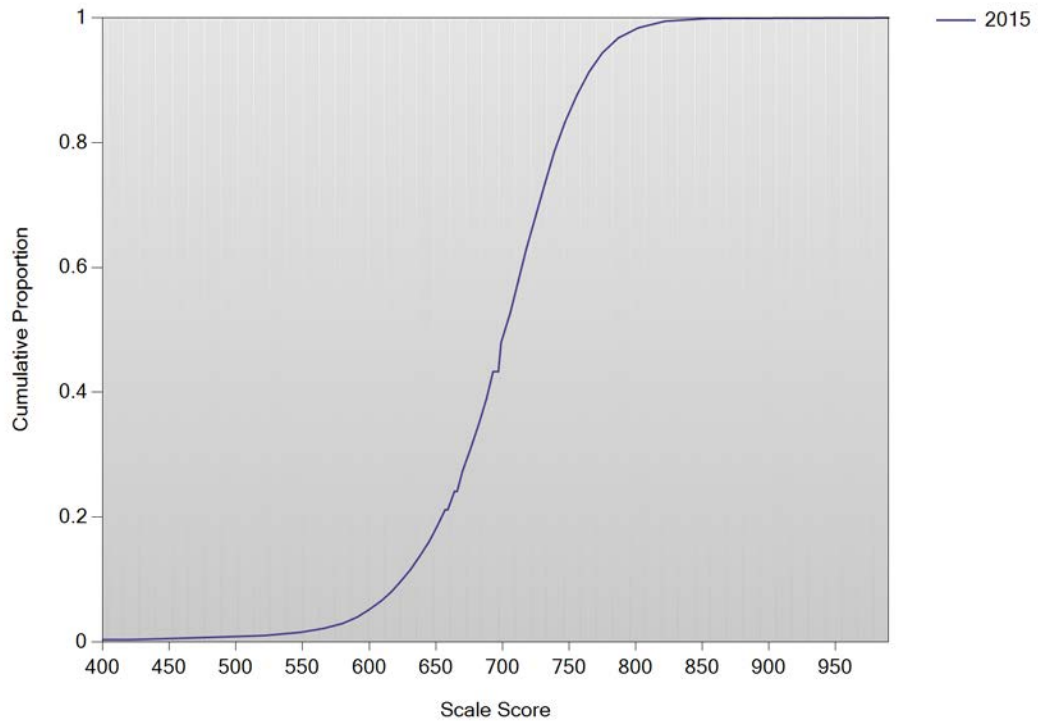


**Table R-7 2014–15 OCCT: Cumulative Score Distribution Plots**  
**Top: Science Grade 5**      **Bottom: Science Grade 8**

**Cumulative Scale Score Distributions:**

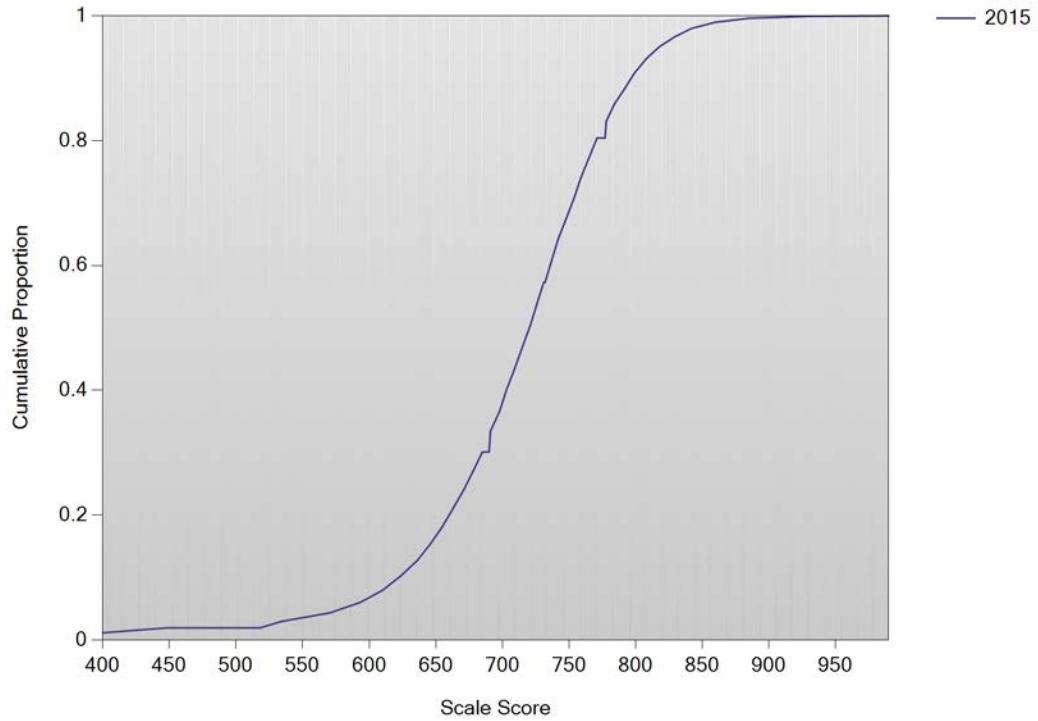


**Cumulative Scale Score Distributions:**

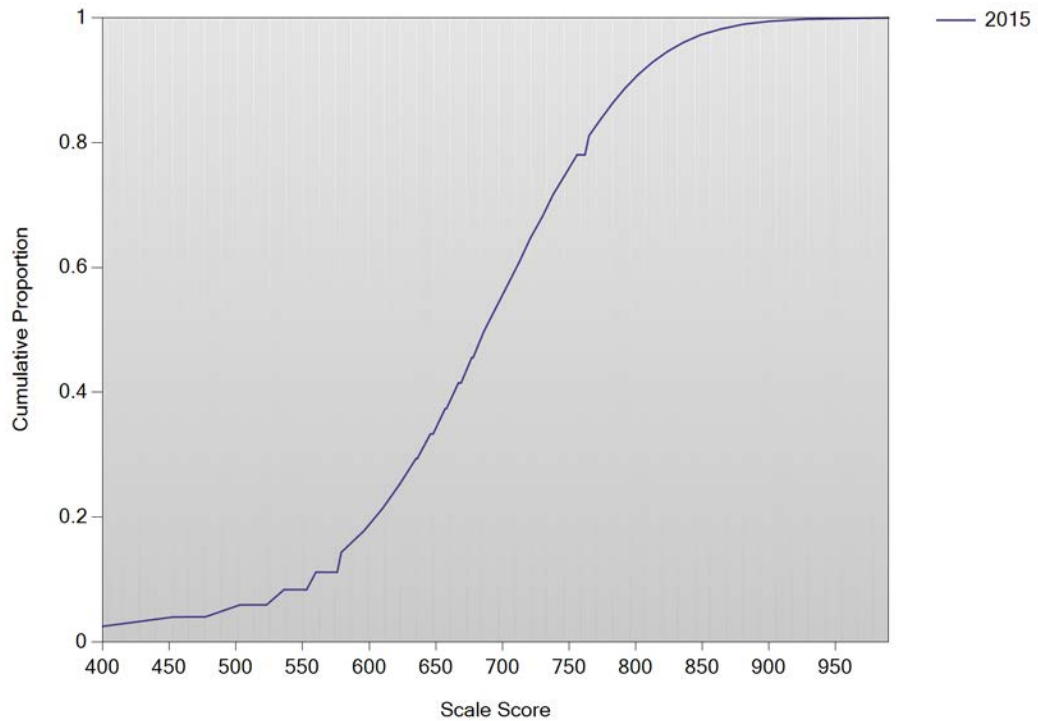


**Table R-8 2014–15 OCCT: Cumulative Score Distribution Plots**  
**Top: Social Studies Grade 5**      **Bottom: Geography Grade 7**

**Cumulative Scale Score Distributions:**

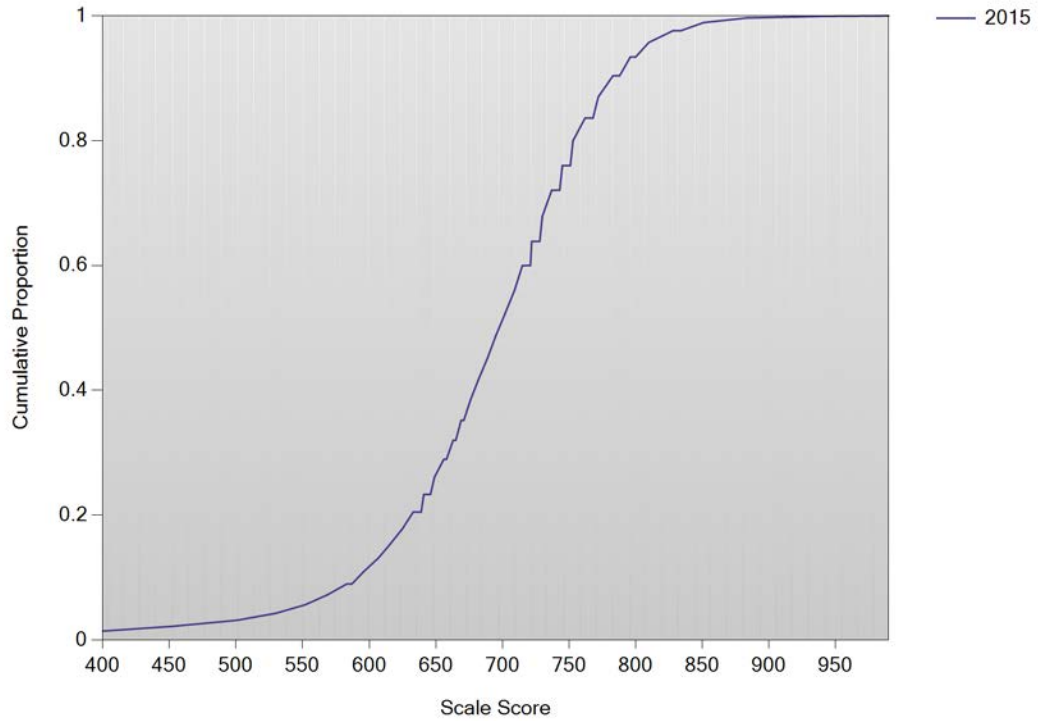


**Cumulative Scale Score Distributions:**

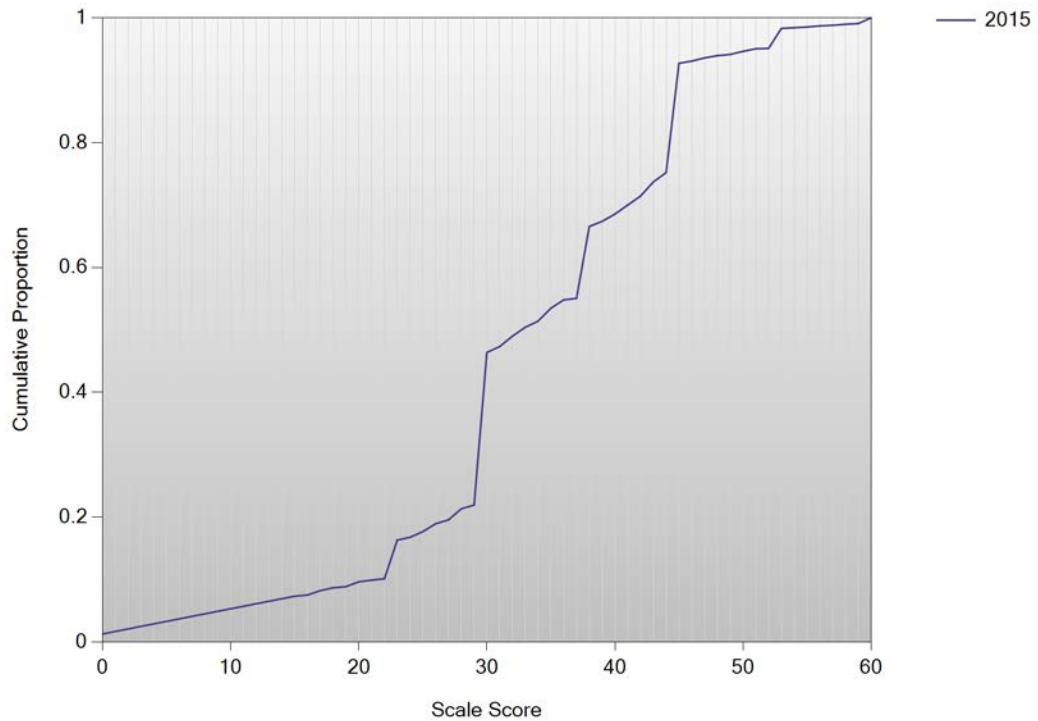


**Table R-9 2014–15 OCCT: Cumulative Score Distribution Plots**  
**Top: U.S. History Grade 8**                      **Bottom: Writing Grade 5**

**Cumulative Scale Score Distributions:**

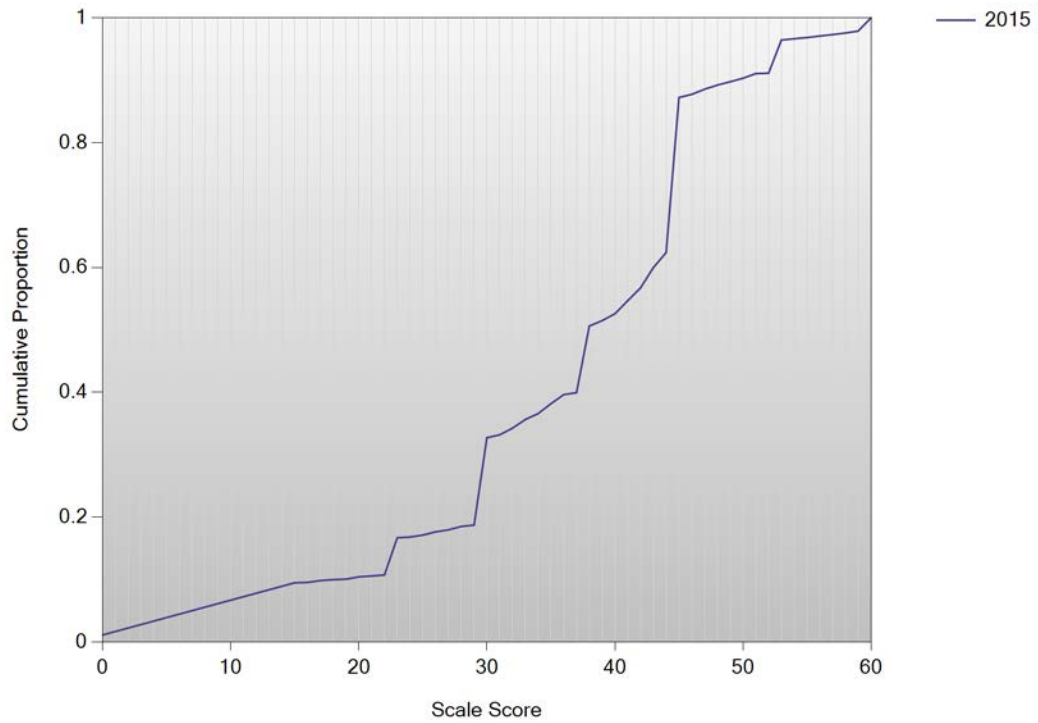


**Cumulative Scale Score Distributions:**



**Table R-10. 2014–15 OCCT: Cumulative Score Distribution Plots  
Top: Writing Grade 8**

**Cumulative Scale Score Distributions:**



# APPENDIX S—CLASSICAL RELIABILITY





**Table S-1. 2014–15 OCCT: Subgroup Reliabilities**

<b>Mathematics</b>							
<i>Grade</i>	<i>Description</i>	<i>Number of Students</i>	<i>Raw Score</i>			<i>Alpha</i>	<i>Standard Error</i>
			<i>Maximum</i>	<i>Mean</i>	<i>Standard Deviation</i>		
3	All Students	51,306	50	35.39	10.28	0.93	2.70
	Male	26,103	50	35.62	10.31	0.93	2.68
	Female	25,200	50	35.16	10.24	0.93	2.71
	Black/African American	4,807	50	28.99	11.10	0.93	2.92
	American Indian/Alaskan Native	7,196	50	35.85	9.74	0.92	2.70
	Hispanic or Latino	9,074	50	32.07	10.42	0.92	2.85
	Asian	926	50	39.61	9.73	0.94	2.40
	Pacific Islander	185	50	29.26	11.95	0.94	2.83
	White/Caucasian	24,779	50	37.55	9.37	0.92	2.59
	Two or More Races	4,339	50	35.69	10.03	0.93	2.69
	English Language Learners (ELL)	6,050	50	29.92	10.35	0.92	2.93
	Individual Education Program (IEP)	8,938	50	29.73	11.21	0.93	2.92
	Economically Disadvantaged	33,323	50	33.14	10.46	0.93	2.81
	Plan 504	621	50	35.64	9.46	0.92	2.72
4	All Students	46,661	50	37.31	9.37	0.92	2.72
	Male	23,747	50	37.53	9.44	0.92	2.70
	Female	22,914	50	37.08	9.28	0.91	2.74
	Black/African American	3,923	50	32.19	10.08	0.91	3.00
	American Indian/Alaskan Native	6,777	50	36.88	9.13	0.91	2.77
	Hispanic or Latino	7,381	50	34.81	9.72	0.91	2.88
	Asian	883	50	41.47	8.53	0.92	2.34
	Pacific Islander	139	50	32.34	10.89	0.93	2.94
	White/Caucasian	23,892	50	38.94	8.68	0.91	2.62
	Two or More Races	3,666	50	37.17	9.35	0.91	2.73
	English Language Learners (ELL)	3,067	50	30.90	10.03	0.91	3.05
	Individual Education Program (IEP)	7,562	50	30.84	10.50	0.92	3.04
	Economically Disadvantaged	28,835	50	35.24	9.56	0.91	2.86
	Plan 504	684	50	36.75	8.50	0.89	2.81
5	All Students	48,502	50	34.52	9.66	0.92	2.80
	Male	24,902	50	34.58	9.80	0.92	2.79
	Female	23,599	50	34.45	9.51	0.91	2.80
	Black/African American	4,319	50	29.20	9.91	0.91	3.00
	American Indian/Alaskan Native	7,196	50	33.82	9.44	0.91	2.84
	Hispanic or Latino	7,952	50	31.87	9.82	0.91	2.91
	Asian	978	50	39.68	8.81	0.92	2.45
	Pacific Islander	127	50	30.66	10.25	0.92	2.94
	White/Caucasian	24,252	50	36.34	9.06	0.91	2.71
	Two or More Races	3,678	50	34.59	9.42	0.91	2.81
	English Language Learners (ELL)	2,514	50	25.82	9.08	0.88	3.10
	Individual Education Program (IEP)	8,455	50	26.78	9.56	0.90	3.07
	Economically Disadvantaged	29,984	50	32.14	9.68	0.91	2.91
	Plan 504	708	50	34.15	9.04	0.90	2.85
6	All Students	48,163	50	31.05	9.69	0.91	2.98
	Male	24,545	50	30.95	9.93	0.91	2.98
	Female	23,618	50	31.16	9.43	0.90	2.97

continued

Grade	Description	Number of Students	Raw Score			Alpha	Standard Error
			Maximum	Mean	Standard Deviation		
6	Black/African American	4,373	50	26.30	9.28	0.89	3.09
	American Indian/Alaskan Native	7,175	50	30.32	9.36	0.90	3.01
	Hispanic or Latino	7,462	50	28.65	9.40	0.89	3.05
	Asian	914	50	37.13	9.56	0.92	2.67
	Pacific Islander	161	50	27.04	9.31	0.89	3.09
	White/Caucasian	24,546	50	32.62	9.45	0.90	2.93
	Two or More Races	3,532	50	31.24	9.57	0.90	2.98
	English Language Learners (ELL)	2,172	50	23.02	8.68	0.87	3.14
	Individual Education Program (IEP)	7,818	50	22.15	8.65	0.87	3.15
	Economically Disadvantaged	29,257	50	28.59	9.32	0.89	3.06
	Plan 504	732	50	31.29	8.87	0.88	3.01
7	All Students	46,635	50	30.23	10.19	0.91	3.00
	Male	23,623	50	30.03	10.40	0.92	2.99
	Female	23,012	50	30.43	9.97	0.91	3.00
	Black/African American	4,383	50	25.66	9.67	0.90	3.09
	American Indian/Alaskan Native	7,414	50	29.28	9.92	0.91	3.04
	Hispanic or Latino	7,171	50	28.05	9.73	0.90	3.07
	Asian	779	50	36.18	9.47	0.92	2.71
	Pacific Islander	138	50	25.66	10.18	0.91	3.09
	White/Caucasian	23,401	50	31.86	10.08	0.91	2.95
	Two or More Races	3,349	50	30.35	10.14	0.91	3.00
	English Language Learners (ELL)	2,352	50	22.78	8.94	0.88	3.15
Individual Education Program (IEP)	7,681	50	21.00	8.72	0.87	3.14	
Economically Disadvantaged	28,345	50	27.70	9.79	0.90	3.08	
Plan 504	635	50	29.87	9.69	0.90	3.04	
8	All Students	36,737	50	26.69	9.70	0.90	3.13
	Male	18,993	50	26.25	9.91	0.90	3.14
	Female	17,744	50	27.16	9.46	0.89	3.13
	Black/African American	3,609	50	23.12	8.73	0.87	3.18
	American Indian/Alaskan Native	6,295	50	26.34	9.65	0.89	3.14
	Hispanic or Latino	5,703	50	25.11	9.16	0.88	3.16
	Asian	452	50	30.81	9.61	0.90	3.03
	Pacific Islander	108	50	24.87	9.56	0.89	3.16
	White/Caucasian	17,942	50	27.98	9.79	0.90	3.11
	Two or More Races	2,628	50	26.42	9.75	0.90	3.14
	English Language Learners (ELL)	2,120	50	21.23	8.33	0.85	3.17
Individual Education Program (IEP)	7,104	50	19.34	8.27	0.85	3.15	
Economically Disadvantaged	23,566	50	25.09	9.47	0.89	3.16	
Plan 504	523	50	26.40	9.07	0.88	3.17	

**Table S-2. 2014–15 OCCT: Subgroup Reliabilities**  
**Reading**

Grade	Description	Number of Students	Raw Score			Alpha	Standard Error
			Maximum	Mean	Standard Deviation		
3	All Students	51,145	50	34.20	9.26	0.90	2.87
	Male	26,033	50	33.13	9.56	0.91	2.92
	Female	25,110	50	35.31	8.80	0.90	2.83
	Black/African American	4,790	50	29.83	9.73	0.90	3.05
	American Indian/Alaskan Native	7,195	50	34.21	8.81	0.89	2.89
	Hispanic or Latino	9,008	50	31.11	9.18	0.89	3.02
	Asian	889	50	37.13	8.69	0.90	2.70
	Pacific Islander	183	50	29.45	9.42	0.89	3.07
	White/Caucasian	24,747	50	36.00	8.77	0.90	2.78
	Two or More Races	4,333	50	34.71	9.08	0.90	2.85
	English Language Learners (ELL)	5,924	50	28.64	8.75	0.87	3.12
	Individual Education Program (IEP)	8,935	50	26.23	10.40	0.91	3.12
	Economically Disadvantaged	33,206	50	32.08	9.33	0.90	2.98
	Plan 504	623	50	34.46	8.10	0.87	2.92
4	All Students	46,455	50	36.10	8.27	0.89	2.77
	Male	23,643	50	35.40	8.75	0.90	2.81
	Female	22,811	50	36.83	7.68	0.87	2.73
	Black/African American	3,905	50	32.93	8.83	0.89	2.95
	American Indian/Alaskan Native	6,777	50	35.57	8.29	0.89	2.80
	Hispanic or Latino	7,279	50	33.60	8.55	0.88	2.92
	Asian	849	50	38.85	7.76	0.89	2.58
	Pacific Islander	132	50	32.61	9.85	0.91	2.91
	White/Caucasian	23,845	50	37.43	7.75	0.88	2.68
	Two or More Races	3,668	50	36.31	8.19	0.89	2.75
	English Language Learners (ELL)	2,920	50	29.02	8.89	0.88	3.11
	Individual Education Program (IEP)	7,553	50	27.97	10.27	0.91	3.10
	Economically Disadvantaged	28,688	50	34.28	8.53	0.89	2.88
	Plan 504	686	50	36.36	6.87	0.83	2.82
5	All Students	48,325	50	35.56	9.39	0.91	2.79
	Male	24,815	50	34.54	9.79	0.92	2.84
	Female	23,508	50	36.64	8.83	0.90	2.74
	Black/African American	4,309	50	31.44	10.03	0.91	2.98
	American Indian/Alaskan Native	7,198	50	34.92	9.40	0.91	2.83
	Hispanic or Latino	7,838	50	32.75	9.65	0.91	2.93
	Asian	957	50	38.79	8.39	0.91	2.58
	Pacific Islander	125	50	32.56	9.62	0.91	2.96
	White/Caucasian	24,229	50	37.24	8.78	0.91	2.70
	Two or More Races	3,669	50	35.91	9.09	0.91	2.79
	English Language Learners (ELL)	2,377	50	25.09	9.16	0.88	3.17
	Individual Education Program (IEP)	8,466	50	25.79	10.32	0.91	3.12
	Economically Disadvantaged	29,859	50	33.25	9.65	0.91	2.92
	Plan 504	707	50	35.80	8.35	0.89	2.82
6	All Students	44,222	50	34.07	8.61	0.89	2.90
	Male	22,393	50	33.02	9.05	0.89	2.94
	Female	21,829	50	35.14	7.98	0.87	2.84

continued

Grade	Description	Number of Students	Raw Score			Alpha	Standard Error
			Maximum	Mean	Standard Deviation		
6	Black/African American	3,958	50	30.14	8.96	0.88	3.06
	American Indian/Alaskan Native	6,604	50	33.50	8.56	0.88	2.93
	Hispanic or Latino	6,765	50	31.73	8.73	0.88	3.00
	Asian	831	50	37.10	7.81	0.88	2.69
	Pacific Islander	147	50	30.03	9.22	0.89	3.04
	White/Caucasian	22,654	50	35.49	8.14	0.88	2.83
	Two or More Races	3,263	50	34.30	8.53	0.89	2.89
	English Language Learners (ELL)	1,848	50	24.60	8.40	0.85	3.20
	Individual Education Program (IEP)	6,974	50	24.47	9.23	0.88	3.19
	Economically Disadvantaged	26,565	50	31.93	8.86	0.89	3.00
	Plan 504	655	50	34.91	7.66	0.86	2.88
7	All Students	45,085	50	36.98	8.25	0.89	2.79
	Male	22,786	50	35.93	8.76	0.89	2.85
	Female	22,299	50	38.06	7.55	0.87	2.73
	Black/African American	4,080	50	33.26	9.08	0.89	2.98
	American Indian/Alaskan Native	7,104	50	36.45	8.18	0.88	2.84
	Hispanic or Latino	6,741	50	34.67	8.52	0.88	2.93
	Asian	860	50	40.28	7.25	0.88	2.53
	Pacific Islander	132	50	32.95	9.74	0.91	2.97
	White/Caucasian	22,936	50	38.33	7.69	0.88	2.71
	Two or More Races	3,232	50	37.39	7.98	0.88	2.77
	English Language Learners (ELL)	2,031	50	28.13	8.70	0.87	3.20
Individual Education Program (IEP)	6,964	50	27.45	9.59	0.89	3.17	
Economically Disadvantaged	26,617	50	34.98	8.64	0.89	2.91	
Plan 504	608	50	37.28	7.32	0.85	2.80	
8	All Students	44,093	50	37.48	7.81	0.88	2.65
	Male	22,411	50	36.58	8.19	0.89	2.71
	Female	21,681	50	38.41	7.27	0.87	2.58
	Black/African American	3,792	50	33.66	8.79	0.89	2.85
	American Indian/Alaskan Native	7,024	50	36.90	7.79	0.88	2.70
	Hispanic or Latino	6,253	50	34.99	8.42	0.89	2.79
	Asian	884	50	39.86	7.59	0.90	2.45
	Pacific Islander	114	50	36.17	8.54	0.90	2.73
	White/Caucasian	22,962	50	38.84	7.07	0.87	2.56
	Two or More Races	3,064	50	37.75	7.52	0.88	2.64
	English Language Learners (ELL)	1,934	50	28.19	8.66	0.87	3.07
Individual Education Program (IEP)	6,423	50	28.26	9.14	0.89	3.06	
Economically Disadvantaged	24,943	50	35.44	8.28	0.89	2.77	
Plan 504	581	50	37.61	6.48	0.83	2.68	

**Table S-3. 2014–15 OCCT: Subgroup Reliabilities  
Science**

Grade	Description	Number of Students	Raw Score			Alpha	Standard Error
			Maximum	Mean	Standard Deviation		
5	All Students	48,451	45	31.78	8.19	0.89	2.70
	Male	24,873	45	31.73	8.51	0.90	2.70
	Female	23,577	45	31.84	7.84	0.88	2.70
	Black/African American	4,322	45	27.07	8.41	0.88	2.92
	American Indian/Alaskan Native	7,198	45	31.33	8.03	0.88	2.74
	Hispanic or Latino	7,949	45	29.23	8.21	0.88	2.84
	Asian	975	45	34.54	7.67	0.89	2.50
	Pacific Islander	127	45	27.09	9.19	0.90	2.89
	White/Caucasian	24,205	45	33.48	7.65	0.88	2.60
	Two or More Races	3,675	45	31.97	7.94	0.88	2.70
	English Language Learners (ELL)	2,506	45	23.76	7.74	0.84	3.05
	Individual Education Program (IEP)	8,441	45	25.53	8.63	0.88	2.97
	Economically Disadvantaged	29,976	45	29.77	8.26	0.88	2.82
	Plan 504	707	45	31.71	7.79	0.88	2.73
8	All Students	47,297	45	29.85	7.73	0.87	2.77
	Male	24,142	45	29.79	8.10	0.88	2.77
	Female	23,151	45	29.91	7.32	0.86	2.77
	Black/African American	4,194	45	25.52	7.85	0.86	2.94
	American Indian/Alaskan Native	7,507	45	29.12	7.45	0.86	2.81
	Hispanic or Latino	6,864	45	27.48	7.71	0.86	2.87
	Asian	974	45	32.87	7.50	0.88	2.60
	Pacific Islander	133	45	27.07	7.84	0.87	2.87
	White/Caucasian	24,338	45	31.37	7.28	0.86	2.70
	Two or More Races	3,287	45	29.89	7.82	0.87	2.77
	English Language Learners (ELL)	2,260	45	22.17	7.14	0.82	3.03
	Individual Education Program (IEP)	7,336	45	22.74	7.47	0.84	3.01
	Economically Disadvantaged	27,199	45	27.78	7.73	0.86	2.86
	Plan 504	628	45	29.74	7.69	0.87	2.77

**Table S-4. 2014–15 OCCT: Subgroup Reliabilities  
Social Studies**

Grade	Description	Number of Students	Raw Score			Alpha	Standard Error
			Maximum	Mean	Standard Deviation		
5	All Students	48,447	50	29.29	9.49	0.89	3.15
	Male	24,876	50	29.71	9.76	0.90	3.12
	Female	23,570	50	28.86	9.18	0.88	3.17
	Black/African American	4,319	50	24.50	9.00	0.87	3.25
	American Indian/Alaskan Native	7,186	50	28.59	9.08	0.88	3.19
	Hispanic or Latino	7,941	50	26.19	9.09	0.87	3.23
	Asian	978	50	33.21	9.68	0.91	2.98
	Pacific Islander	127	50	24.70	8.53	0.85	3.27
	White/Caucasian	24,222	50	31.21	9.24	0.89	3.09
	Two or More Races	3,674	50	29.51	9.20	0.88	3.15

continued

Grade	Description	Number of Students	Raw Score			Alpha	Standard Error
			Maximum	Mean	Standard Deviation		
5	English Language Learners (ELL)	2,503	50	20.45	7.47	0.81	3.28
	Individual Education Program (IEP)	8,426	50	22.91	8.72	0.86	3.26
	Economically Disadvantaged	29,947	50	26.73	9.03	0.87	3.23
	Plan 504	708	50	28.99	8.98	0.87	3.18
7	All Students	47,503	49	26.14	8.55	0.86	3.20
	Male	24,128	49	26.96	8.80	0.87	3.17
	Female	23,375	49	25.28	8.19	0.85	3.22
	Black/African American	4,376	49	22.02	7.65	0.82	3.26
	American Indian/Alaskan Native	7,426	49	24.96	8.07	0.84	3.23
	Hispanic or Latino	7,250	49	24.03	7.92	0.83	3.24
	Asian	918	49	31.52	8.70	0.88	3.02
	Pacific Islander	134	49	22.47	8.15	0.84	3.22
	White/Caucasian	23,998	49	27.69	8.54	0.86	3.16
	Two or More Races	3,401	49	26.21	8.41	0.86	3.20
	English Language Learners (ELL)	2,327	49	19.70	6.48	0.75	3.26
	Individual Education Program (IEP)	7,644	49	19.75	7.26	0.80	3.24
	Economically Disadvantaged	28,414	49	23.74	7.81	0.83	3.25
	Plan 504	647	49	27.11	8.35	0.85	3.19
8	All Students	47,247	50	31.94	9.07	0.89	3.04
	Male	24,122	50	32.61	9.40	0.90	3.00
	Female	23,125	50	31.24	8.65	0.87	3.08
	Black/African American	4,188	50	27.46	8.94	0.87	3.19
	American Indian/Alaskan Native	7,454	50	30.91	8.63	0.87	3.10
	Hispanic or Latino	6,866	50	29.31	9.12	0.88	3.14
	Asian	973	50	36.43	8.78	0.90	2.78
	Pacific Islander	132	50	29.89	9.57	0.90	3.10
	White/Caucasian	24,336	50	33.59	8.70	0.88	2.97
	Two or More Races	3,298	50	32.00	8.98	0.89	3.04
	English Language Learners (ELL)	2,258	50	23.46	7.96	0.83	3.29
	Individual Education Program (IEP)	7,350	50	24.86	8.54	0.85	3.26
	Economically Disadvantaged	27,168	50	29.45	8.90	0.88	3.15
	Plan 504	628	50	32.30	8.89	0.88	3.04

**Table S-5. 2014–15 OCCT: Subgroup Reliabilities**  
**Writing**

Grade	Description	Number of Students	Raw Score			Alpha	Standard Error
			Maximum	Mean	Standard Deviation		
5	All Students	48,192	60	34.35	10.63	0.99	1.06
	Male	24,722	60	31.86	10.25	0.99	1.04
	Female	23,470	60	36.97	10.39	0.99	1.09
	Black/African American	4,333	60	31.33	10.62	0.99	1.08
	American Indian/Alaskan Native	7,141	60	33.67	10.64	0.99	1.06
	Hispanic or Latino	7,833	60	32.89	10.35	0.99	1.08
	Asian	957	60	38.54	11.26	0.99	1.02
	Pacific Islander	125	60	33.97	9.49	0.99	1.15

continued

Grade	Description	Number of Students	Raw Score			Alpha	Standard Error
			Maximum	Mean	Standard Deviation		
5	White/Caucasian	24,126	60	35.40	10.53	0.99	1.06
	Two or More Races	3,677	60	34.38	10.44	0.99	1.06
	English Language Learners (ELL)	2,392	60	27.86	10.02	0.99	1.06
	Individual Education Program (IEP)	8,454	60	26.50	10.50	0.99	1.01
	Economically Disadvantaged	29,798	60	32.31	10.46	0.99	1.07
	Plan 504	705	60	33.08	10.08	0.99	1.12
8	All Students	47,160	60	37.07	11.67	0.99	1.09
	Male	24,109	60	35.55	11.35	0.99	1.10
	Female	23,051	60	38.65	11.79	0.99	1.07
	Black/African American	4,187	60	32.16	12.12	0.99	1.14
	American Indian/Alaskan Native	7,477	60	36.07	11.91	0.99	1.09
	Hispanic or Latino	6,763	60	34.84	11.76	0.99	1.12
	Asian	942	60	41.08	11.33	0.99	1.12
	Pacific Islander	128	60	34.73	12.44	0.99	1.09
	White/Caucasian	24,360	60	38.66	11.08	0.99	1.07
	Two or More Races	3,303	60	37.31	11.79	0.99	1.10
	English Language Learners (ELL)	2,131	60	28.47	11.54	0.99	1.11
	Individual Education Program (IEP)	7,351	60	28.01	11.08	0.99	1.08
	Economically Disadvantaged	27,113	60	34.53	11.88	0.99	1.10
	Plan 504	636	60	36.17	10.72	0.99	1.18

**Table S-6. 2014–15 OCCT: Reliabilities by Reporting Category—Mathematics**

Grade	Reporting Category	Number of Items	Raw Score			Alpha	Standard Error
			Maximum	Mean	Standard Deviation		
3	1	7	7	5.56	1.54	0.62	0.94
	2	2	2	1.50	0.68	0.37	0.54
	3	2	2	1.45	0.74	0.54	0.50
	4	3	3	2.61	0.66	0.39	0.52
	5	20	20	13.58	4.27	0.84	1.73
	6	10	10	7.48	2.29	0.75	1.14
	7	10	10	6.10	2.41	0.72	1.28
	8	7	7	5.08	1.52	0.58	0.99
	9	3	3	1.70	0.95	0.40	0.74
	10	2	2	1.82	0.45	0.32	0.37
	11	2	2	1.57	0.73	0.72	0.38
	12	9	9	6.12	2.40	0.76	1.17
	13	4	4	2.84	1.11	0.53	0.76
	14	2	2	1.44	0.72	0.47	0.53
	15	3	3	1.84	1.19	0.75	0.60
	16	7	7	5.06	2.18	0.83	0.90
	17	4	4	2.81	1.49	0.84	0.59
	18	3	3	2.25	0.99	0.64	0.59
4	1	7	7	5.63	1.55	0.66	0.91
	2	3	3	2.14	0.95	0.50	0.67

continued



Grade	Reporting Category	Number of Items	Raw Score			Alpha	Standard Error
			Maximum	Mean	Standard Deviation		
4	3	2	2	1.73	0.57	0.55	0.38
	4	2	2	1.76	0.53	0.53	0.37
	5	18	18	12.67	3.87	0.81	1.70
	6	8	8	6.00	1.75	0.62	1.07
	7	10	10	6.67	2.59	0.75	1.29
	8	9	9	6.96	1.88	0.65	1.11
	9	2	2	1.74	0.53	0.43	0.40
	10	2	2	1.39	0.70	0.41	0.54
	11	3	3	2.25	0.85	0.34	0.69
	12	2	2	1.59	0.61	0.27	0.52
	13	9	9	7.03	1.98	0.69	1.10
	14	5	5	3.78	1.33	0.61	0.83
	15	2	2	1.66	0.58	0.33	0.47
	16	2	2	1.59	0.71	0.71	0.38
	17	7	7	5.01	1.89	0.71	1.02
	18	2	2	1.37	0.74	0.40	0.57
	19	3	3	2.07	1.07	0.66	0.62
20	2	2	1.57	0.70	0.63	0.43	
5	1	13	13	9.23	2.71	0.73	1.42
	2	5	5	3.19	1.34	0.51	0.94
	3	4	4	2.93	1.19	0.62	0.74
	4	4	4	3.11	0.89	0.34	0.73
	5	16	16	11.26	3.52	0.81	1.54
	6	8	8	5.69	1.96	0.71	1.05
	7	8	8	5.57	1.95	0.68	1.11
	8	7	7	4.74	1.62	0.60	1.03
	9	4	4	2.36	1.11	0.45	0.82
	10	3	3	2.38	0.83	0.49	0.60
	11	7	7	4.55	1.74	0.62	1.07
	12	5	5	2.95	1.41	0.56	0.93
	13	2	2	1.60	0.64	0.44	0.48
	14	7	7	4.73	1.71	0.60	1.08
	15	3	3	2.09	0.80	0.25	0.70
	16	2	2	1.19	0.79	0.47	0.58
	17	2	2	1.45	0.69	0.33	0.57
6	1	13	13	9.44	2.71	0.73	1.40
	2	4	4	2.97	0.97	0.40	0.76
	3	4	4	2.86	1.07	0.46	0.78
	4	3	3	2.32	0.88	0.48	0.63
	5	2	2	1.30	0.72	0.30	0.60
	6	15	15	8.24	3.52	0.78	1.67
	7	5	5	2.90	1.40	0.60	0.88
	8	10	10	5.34	2.47	0.67	1.41
	9	8	8	5.24	1.84	0.59	1.18
	10	2	2	1.15	0.74	0.27	0.63
	11	2	2	1.43	0.69	0.33	0.56
	12	4	4	2.67	1.10	0.49	0.79
	13	7	7	3.39	1.81	0.57	1.19

continued

Grade	Reporting Category	Number of Items	Raw Score			Alpha	Standard Error
			Maximum	Mean	Standard Deviation		
6	14	4	4	1.80	1.27	0.52	0.88
	15	3	3	1.58	0.96	0.37	0.77
	16	7	7	4.74	1.86	0.67	1.06
	17	3	3	2.10	0.88	0.35	0.71
	18	2	2	1.22	0.92	0.87	0.33
	19	2	2	1.43	0.68	0.32	0.56
7	1	15	15	10.11	3.13	0.75	1.57
	2	5	5	3.85	1.10	0.47	0.80
	3	5	5	3.33	1.40	0.56	0.93
	4	5	5	2.93	1.40	0.55	0.94
	5	11	11	6.90	2.58	0.70	1.41
	6	5	5	3.20	1.43	0.61	0.90
	7	6	6	3.70	1.53	0.51	1.07
	8	8	8	4.90	1.99	0.63	1.21
	9	2	2	1.25	0.75	0.34	0.61
	10	2	2	1.10	0.80	0.47	0.58
	11	4	4	2.55	1.09	0.43	0.83
	12	9	9	4.50	2.36	0.69	1.31
	13	5	5	2.87	1.65	0.69	0.92
	14	2	2	0.94	0.71	0.10	0.67
	15	2	2	0.70	0.70	0.17	0.64
	16	7	7	3.82	1.97	0.68	1.11
	17	2	2	0.93	0.68	0.27	0.59
	18	2	2	1.04	0.82	0.51	0.57
	19	3	3	1.84	1.08	0.59	0.69
8	1	16	16	8.23	3.36	0.71	1.81
	2	11	11	5.75	2.39	0.60	1.51
	3	5	5	2.47	1.42	0.51	0.99
	4	11	11	5.71	2.46	0.64	1.48
	5	4	4	2.51	1.25	0.55	0.84
	6	7	7	3.20	1.63	0.45	1.21
	7	9	9	5.32	2.09	0.64	1.25
	8	5	5	3.35	1.23	0.49	0.88
	9	4	4	1.97	1.30	0.57	0.85
	10	7	7	3.45	2.02	0.69	1.13
	11	3	3	1.62	1.03	0.50	0.73
	12	1	1	0.57	0.50		
	13	3	3	1.27	1.02	0.46	0.75
	14	7	7	3.99	1.80	0.59	1.15
	15	3	3	1.57	1.01	0.41	0.78
	16	4	4	2.41	1.14	0.45	0.85

**Table S-7. 2014–15 OCCT: Reliabilities  
by Reporting Category—Reading**

Grade	Reporting Category	Number of Items	Raw Score			Alpha	Standard Error
			Maximum	Mean	Standard Deviation		
3	1	12	12	9.02	2.43	0.72	1.29
	2	1	1	0.85	0.36		
	3	3	3	2.61	0.74	0.59	0.47
	4	5	5	3.75	1.22	0.50	0.86
	5	3	3	1.81	0.91	0.29	0.77
	6	24	24	16.32	4.72	0.82	2.01
	7	5	5	3.42	1.25	0.48	0.90
	8	9	9	6.11	1.95	0.58	1.26
	9	3	3	1.84	0.92	0.34	0.75
	10	7	7	4.94	1.72	0.63	1.05
	11	8	8	5.12	2.04	0.66	1.20
	12	3	3	1.63	0.97	0.33	0.80
	13	5	5	3.49	1.46	0.64	0.87
	14	6	6	3.73	1.42	0.48	1.03
	15	6	6	3.73	1.42	0.48	1.03
4	1	12	12	9.49	2.36	0.73	1.23
	2	5	5	3.81	1.26	0.58	0.82
	3	3	3	2.41	0.74	0.30	0.62
	4	4	4	3.27	0.94	0.49	0.67
	5	23	23	16.61	3.98	0.78	1.87
	6	7	7	5.73	1.35	0.55	0.91
	7	7	7	5.22	1.57	0.56	1.04
	8	5	5	2.90	1.17	0.35	0.94
	9	4	4	2.76	1.06	0.41	0.81
	10	9	9	6.18	1.89	0.57	1.23
	11	4	4	2.96	1.00	0.37	0.79
	12	5	5	3.22	1.31	0.50	0.93
	13	6	6	3.82	1.46	0.49	1.05
	14	6	6	3.82	1.46	0.49	1.05
5	1	12	12	8.81	2.40	0.69	1.33
	2	3	3	2.15	0.89	0.36	0.71
	3	6	6	4.52	1.32	0.53	0.90
	4	3	3	2.14	0.83	0.33	0.68
	5	20	20	14.66	4.22	0.84	1.70
	6	2	2	1.52	0.67	0.38	0.53
	7	8	8	5.41	2.01	0.67	1.14
	8	4	4	2.85	1.11	0.48	0.80
	9	6	6	4.88	1.33	0.63	0.81
	10	12	12	8.01	2.51	0.66	1.45
	11	4	4	2.82	1.03	0.38	0.81
	12	2	2	1.14	0.73	0.20	0.65
	13	6	6	4.05	1.48	0.53	1.02
	14	6	6	4.08	1.52	0.56	1.01
	15	5	5	3.43	1.33	0.54	0.90
	16	1	1	0.64	0.48		

continued

Grade	Reporting Category	Number of Items	Raw Score			Alpha	Standard Error
			Maximum	Mean	Standard Deviation		
6	1	8	8	5.68	1.66	0.52	1.15
	2	5	5	3.51	1.22	0.42	0.93
	3	3	3	2.17	0.79	0.27	0.68
	4	20	20	14.07	4.06	0.81	1.77
	5	9	9	6.21	1.98	0.64	1.19
	6	4	4	2.75	1.10	0.39	0.85
	7	2	2	1.46	0.70	0.38	0.55
	8	5	5	3.66	1.25	0.54	0.84
	9	14	14	9.11	2.76	0.66	1.61
	10	5	5	3.33	1.34	0.50	0.95
	11	5	5	3.06	1.28	0.41	0.98
	12	4	4	2.71	0.96	0.22	0.85
	13	8	8	5.21	1.56	0.46	1.14
	14	5	5	3.63	1.16	0.44	0.87
	15	3	3	1.58	0.79	0.12	0.74
7	1	10	10	7.77	1.75	0.55	1.17
	2	4	4	3.08	0.88	0.27	0.75
	3	4	4	2.96	1.01	0.39	0.78
	4	2	2	1.74	0.49	0.22	0.43
	5	20	20	14.24	4.04	0.80	1.81
	6	4	4	3.01	1.04	0.48	0.75
	7	1	1	0.68	0.47		
	8	8	8	5.22	1.89	0.58	1.23
	9	7	7	5.33	1.62	0.61	1.01
	10	12	12	9.15	2.15	0.61	1.34
	11	4	4	3.15	0.96	0.39	0.75
	12	5	5	3.76	1.07	0.36	0.86
	13	3	3	2.24	0.82	0.27	0.71
	14	8	8	5.81	1.68	0.53	1.15
	15	5	5	3.64	1.17	0.40	0.91
	16	3	3	2.17	0.85	0.33	0.70
8	1	6	6	4.66	1.09	0.42	0.84
	2	3	3	2.20	0.64	0.13	0.60
	3	1	1	0.89	0.31		
	4	2	2	1.57	0.60	0.32	0.50
	5	21	21	15.44	3.60	0.77	1.72
	6	4	4	3.36	0.93	0.50	0.65
	7	6	6	4.15	1.28	0.46	0.94
	8	5	5	3.21	1.34	0.51	0.93
	9	6	6	4.72	1.12	0.41	0.86
	10	15	15	11.68	2.65	0.71	1.43
	11	4	4	3.02	0.95	0.34	0.77
	12	4	4	3.16	0.86	0.28	0.73
	13	7	7	5.50	1.55	0.62	0.96
	14	8	8	5.69	1.69	0.54	1.14
	15	5	5	3.99	1.14	0.51	0.80
	16	3	3	1.71	0.93	0.23	0.81

**Table S-8. 2014–15 OCCT: Reliabilities  
by Reporting Category—Science**

Grade	Reporting Category	Number of Items	Raw Score			Alpha	Standard Error
			Maximum	Mean	Standard Deviation		
5	1	10	10	7.07	2.14	0.67	1.23
	2	6	6	4.32	1.39	0.55	0.93
	3	4	4	2.76	1.08	0.45	0.81
	4	10	10	7.09	2.08	0.62	1.28
	5	5	5	3.55	1.22	0.45	0.91
	6	5	5	3.54	1.22	0.44	0.91
	7	13	13	9.49	2.66	0.71	1.42
	8	9	9	6.08	2.10	0.63	1.27
	9	4	4	3.41	0.87	0.48	0.63
	10	12	12	8.13	2.58	0.69	1.44
	11	4	4	2.96	1.05	0.43	0.79
	12	4	4	2.52	1.12	0.38	0.89
	13	4	4	2.65	1.09	0.43	0.82
	14	17	17	11.92	3.46	0.77	1.67
	15	4	4	2.98	1.00	0.40	0.77
	16	5	5	3.62	1.24	0.46	0.91
	17	4	4	3.03	1.07	0.51	0.75
	18	4	4	2.30	1.21	0.46	0.89
	19	12	12	7.98	2.63	0.70	1.44
	20	7	7	4.97	1.70	0.61	1.06
	21	5	5	3.02	1.32	0.45	0.98
	22	12	12	8.46	2.42	0.66	1.41
	23	4	4	2.48	1.11	0.34	0.91
	24	4	4	2.94	1.02	0.42	0.78
	25	4	4	3.05	1.02	0.45	0.75
8	1	9	9	5.96	2.03	0.65	1.20
	2	4	4	3.00	1.08	0.50	0.77
	3	5	5	2.96	1.28	0.48	0.92
	4	7	7	5.08	1.48	0.46	1.09
	5	4	4	2.98	0.96	0.32	0.79
	6	3	3	2.11	0.87	0.26	0.75
	7	16	16	10.31	3.10	0.72	1.65
	8	6	6	3.63	1.53	0.51	1.07
	9	6	6	3.20	1.51	0.48	1.09
	10	4	4	3.48	0.85	0.54	0.57
	11	13	13	8.49	2.48	0.62	1.53
	12	7	7	4.37	1.45	0.38	1.14
	13	6	6	4.12	1.46	0.52	1.01
	14	8	8	5.05	1.91	0.62	1.18
	15	4	4	2.69	1.19	0.52	0.83
	16	4	4	2.37	1.04	0.35	0.84
	17	8	8	4.82	1.81	0.53	1.24
	18	4	4	2.62	1.04	0.35	0.84
	19	4	4	2.20	1.14	0.36	0.91
	20	7	7	5.14	1.56	0.56	1.04
	21	3	3	2.06	0.89	0.29	0.75

continued

Grade	Reporting Category	Number of Items	Raw Score			Alpha	Standard Error
			Maximum	Mean	Standard Deviation		
8	22	4	4	3.08	0.99	0.47	0.72
	23	11	11	6.83	2.34	0.62	1.44
	24	4	4	2.74	1.15	0.46	0.84
	25	4	4	2.48	1.13	0.45	0.84
	26	3	3	1.61	0.87	0.15	0.80
	27	7	7	4.53	1.44	0.42	1.10
	28	4	4	2.26	1.01	0.24	0.88
	29	3	3	2.27	0.79	0.32	0.65

**Table S-9. OCCT: Reliabilities  
by Reporting Category—Social Studies**

Grade	Reporting Category	Number of Items	Raw Score			Alpha	Standard Error
			Maximum	Mean	Standard Deviation		
5	1	8	8	4.91	1.90	0.57	1.24
	2	5	5	3.17	1.34	0.50	0.94
	3	3	3	1.74	0.94	0.27	0.80
	4	10	10	6.26	2.44	0.68	1.37
	5	5	5	3.12	1.41	0.52	0.98
	6	5	5	3.15	1.39	0.52	0.97
	7	17	17	9.76	3.71	0.75	1.84
	8	4	4	2.08	1.21	0.46	0.89
	9	4	4	2.48	1.17	0.43	0.88
	10	4	4	2.12	1.19	0.44	0.89
	11	5	5	3.07	1.33	0.44	1.00
	12	15	15	8.36	2.98	0.66	1.74
	13	5	5	2.68	1.31	0.39	1.03
	14	6	6	3.15	1.49	0.42	1.13
	15	4	4	2.53	1.07	0.40	0.83
7	1	5	5	2.56	1.33	0.38	1.05
	2	4	4	2.09	1.13	0.31	0.94
	3	1	1	0.47	0.50		
	4	12	12	6.14	2.38	0.57	1.57
	5	4	4	2.47	1.12	0.40	0.86
	6	4	4	1.96	1.09	0.33	0.89
	7	4	4	1.72	1.08	0.24	0.94
	8	6	6	4.17	1.54	0.57	1.01
	9	2	2	1.39	0.69	0.31	0.57
	10	4	4	2.77	1.15	0.48	0.83
	11	16	16	8.27	3.47	0.72	1.83
	12	6	6	3.15	1.61	0.51	1.13
	13	5	5	2.57	1.35	0.43	1.02
	14	5	5	2.56	1.34	0.42	1.02
	15	10	10	5.00	2.00	0.44	1.49
	16	4	4	2.18	1.08	0.21	0.96
	17	6	6	2.83	1.41	0.35	1.14

continued

Grade	Reporting Category	Number of Items	Raw Score			Alpha	Standard Error
			Maximum	Mean	Standard Deviation		
8	1	8	8	4.51	1.81	0.48	1.30
	2	4	4	2.45	1.17	0.41	0.90
	3	4	4	2.06	1.06	0.21	0.94
	4	6	6	4.66	1.29	0.50	0.92
	5	6	6	4.66	1.29	0.50	0.92
	6	10	10	6.63	2.34	0.67	1.33
	7	4	4	2.63	1.14	0.41	0.87
	8	6	6	3.99	1.56	0.58	1.01
	9	16	16	10.06	3.35	0.73	1.75
	10	5	5	3.16	1.28	0.42	0.98
	11	6	6	4.01	1.54	0.56	1.02
	12	5	5	2.89	1.38	0.46	1.01
	13	10	10	6.09	2.16	0.60	1.36
	14	5	5	3.73	1.27	0.54	0.86
	15	5	5	2.36	1.30	0.35	1.04

**Table S-10. 2014–15 OCCT: Reliabilities  
by Reporting Category—Writing**

Grade	Reporting Category	Number of Items	Raw Score			Alpha	Standard Error
			Maximum	Mean	Standard Deviation		
5	1	1	4	2.28	0.73		
	2	1	4	2.27	0.72		
	3	1	4	2.29	0.72		
	4	1	4	2.29	0.71		
	5	1	4	2.28	0.71		
8	1	1	4	2.47	0.80		
	2	1	4	2.46	0.79		
	3	1	4	2.47	0.79		
	4	1	4	2.46	0.79		
	5	1	4	2.44	0.78		

# APPENDIX T—DECISION ACCURACY AND CONSISTENCY RESULTS





**Table T-1. 2014–15 OCCT: Summary of Decision Accuracy (and Consistency) Results  
by Content Area and Grade—Overall and Conditional on Performance Level**

Content Area	Grade	Overall	Kappa	Conditional on Level			
				Substantially Below Proficient	Partially Proficient	Proficient	Proficient with Distinction
Mathematics	3	0.80 (0.72)	0.62	0.85 (0.78)	0.67 (0.57)	0.78 (0.71)	0.89 (0.82)
	4	0.80 (0.72)	0.60	0.82 (0.74)	0.63 (0.52)	0.79 (0.73)	0.89 (0.82)
	5	0.78 (0.70)	0.59	0.84 (0.76)	0.64 (0.53)	0.76 (0.68)	0.89 (0.81)
	6	0.77 (0.70)	0.57	0.84 (0.77)	0.48 (0.37)	0.79 (0.73)	0.87 (0.77)
	7	0.78 (0.71)	0.58	0.85 (0.79)	0.35 (0.26)	0.79 (0.72)	0.87 (0.77)
	8	0.75 (0.66)	0.54	0.85 (0.78)	0.63 (0.52)	0.71 (0.61)	0.86 (0.74)
Reading	3	0.83 (0.77)	0.58	0.82 (0.74)	0.55 (0.44)	0.90 (0.87)	0.81 (0.59)
	4	0.80 (0.73)	0.55	0.82 (0.74)	0.51 (0.40)	0.87 (0.83)	0.82 (0.63)
	5	0.79 (0.71)	0.58	0.84 (0.77)	0.60 (0.49)	0.83 (0.78)	0.86 (0.73)
	6	0.79 (0.71)	0.56	0.82 (0.74)	0.61 (0.50)	0.85 (0.80)	0.81 (0.63)
	7	0.77 (0.69)	0.54	0.82 (0.74)	0.44 (0.34)	0.81 (0.76)	0.85 (0.73)
	8	0.78 (0.70)	0.53	0.80 (0.70)	0.49 (0.38)	0.83 (0.78)	0.85 (0.71)
Science	5	0.73 (0.64)	0.52	0.83 (0.76)	0.60 (0.50)	0.68 (0.58)	0.86 (0.75)
	8	0.71 (0.62)	0.49	0.82 (0.73)	0.60 (0.50)	0.67 (0.57)	0.84 (0.72)
Social Studies	5	0.74 (0.66)	0.52	0.81 (0.72)	0.52 (0.41)	0.60 (0.50)	0.89 (0.83)
Geography	7	0.70 (0.62)	0.47	0.80 (0.72)	0.47 (0.37)	0.55 (0.45)	0.87 (0.79)
U.S. History	8	0.72 (0.64)	0.51	0.83 (0.75)	0.54 (0.43)	0.60 (0.49)	0.88 (0.79)
Writing	5	0.91 (0.88)	0.82	0.91 (0.88)	0.91 (0.88)	0.90 (0.86)	0.93 (0.88)
	8	0.92 (0.88)	0.84	0.93 (0.90)	0.89 (0.85)	0.91 (0.88)	0.94 (0.90)

**Table T-2. 2014–15 OCCT: Summary of Decision Accuracy (and Consistency) Results  
by Content Area and Grade—Conditional on Cutpoint**

Content Area	Grade	Substantially Below Proficient / Partially Proficient			Partially Proficient / Proficient			Proficient / Proficient with Distinction		
		Accuracy (consistency)	False		Accuracy (consistency)	False		Accuracy (consistency)	False	
			Positive	Negative		Positive	Negative		Positive	Negative
Mathematics	3	0.95 (0.92)	0.03	0.03	0.92 (0.89)	0.04	0.04	0.93 (0.90)	0.04	0.03
	4	0.95 (0.94)	0.02	0.02	0.92 (0.89)	0.04	0.04	0.92 (0.89)	0.05	0.03
	5	0.95 (0.92)	0.03	0.03	0.92 (0.88)	0.04	0.04	0.92 (0.89)	0.05	0.03
	6	0.93 (0.90)	0.03	0.04	0.91 (0.87)	0.05	0.04	0.93 (0.90)	0.05	0.03
	7	0.92 (0.89)	0.04	0.04	0.91 (0.87)	0.05	0.04	0.93 (0.90)	0.05	0.03
	8	0.92 (0.88)	0.04	0.04	0.90 (0.86)	0.06	0.04	0.93 (0.90)	0.04	0.02
Reading	3	0.94 (0.91)	0.03	0.03	0.91 (0.87)	0.05	0.04	0.98 (0.97)	0.02	0.00
	4	0.93 (0.90)	0.03	0.04	0.90 (0.86)	0.05	0.05	0.96 (0.95)	0.03	0.01
	5	0.93 (0.91)	0.03	0.03	0.91 (0.87)	0.05	0.04	0.94 (0.92)	0.04	0.02
	6	0.92 (0.89)	0.04	0.04	0.89 (0.85)	0.06	0.05	0.97 (0.95)	0.02	0.01
	7	0.93 (0.90)	0.03	0.04	0.90 (0.87)	0.05	0.05	0.93 (0.90)	0.05	0.02
	8	0.94 (0.91)	0.03	0.03	0.91 (0.87)	0.05	0.05	0.93 (0.90)	0.05	0.02
Science	5	0.92 (0.88)	0.04	0.04	0.89 (0.85)	0.06	0.05	0.92 (0.89)	0.05	0.03
	8	0.91 (0.88)	0.04	0.05	0.88 (0.84)	0.06	0.05	0.92 (0.88)	0.05	0.03
Social Studies	5	0.94 (0.91)	0.03	0.04	0.91 (0.87)	0.05	0.05	0.90 (0.85)	0.06	0.04
Geography	7	0.91 (0.88)	0.04	0.05	0.89 (0.84)	0.06	0.05	0.89 (0.84)	0.07	0.04
U.S. History	8	0.92 (0.89)	0.04	0.04	0.89 (0.85)	0.06	0.05	0.90 (0.87)	0.06	0.04
Writing	5	0.97 (0.96)	0.01	0.01	0.96 (0.95)	0.02	0.02	0.98 (0.97)	0.01	0.01
	8	0.98 (0.97)	0.01	0.01	0.97 (0.95)	0.02	0.02	0.97 (0.96)	0.01	0.01

# APPENDIX U—SAMPLE REPORTS



# STUDENT REPORT

## Oklahoma Core Curriculum Tests (OCCT) Grade 3 Mathematics - Spring 2015

For the family of:

**FNAME21 R LNAME21**

State Student ID: D030000021

Birth Date: 09/24/2004

Demonstration School 1

Demonstration District A

Code: DEMONA-DE1

### FNAME21'S performance on the OCCT Grade 3 Mathematics test



This report provides specific information about your student's performance on the Oklahoma Core Curriculum Tests (OCCT) Grade 3 Mathematics test. Students are tested throughout our state to ensure that they meet high standards based on the Oklahoma Academic Standards. These tests provide information for you to make informed decisions about your student's education. To learn more about your student's performance in school, talk to your student's teacher. Your student's success in school depends on your ongoing involvement.

OCCT Grade 3 Mathematics		FNAME21'S overall performance on the test is <b>ADVANCED</b> . Your student's performance level is based on the Oklahoma Performance Index.	
Meets State Goal	<b>ADVANCED</b>	990	<b>804</b>
	<b>PROFICIENT</b>	798	
		797	
Below State Goal	<b>LIMITED KNOWLEDGE</b>	700	
		699	
	<b>UNSATISFACTORY</b>	633	
		632	
		400	

(Standard Met = 700 or above)

The performance level attained by your student indicates that your student can perform the majority of the skills described for that level and even more of what is described for the levels below. Your student may also be capable of performing some of the competencies described in the next higher level, but not enough to have reached that level of performance.

Confirm your student's performance by reviewing classroom work, other standards-based assessments, and your student's progress reports during the year.

*A single exam can provide only limited information. A student taking the same test more than once might score higher or lower in each subject within a small range. If tested again, your student would likely score in this range: 777-831.*

### Performance Levels & OPI Score Ranges

- ADVANCED: OPI score range: 798-990**  
Students demonstrate superior performance on challenging subject matter. In addition to demonstrating a broad and in-depth understanding and application of all skills at the Proficient level, students scoring at the Advanced level typically: use a wide range of strategies to solve problems; regularly use various types of reasoning effectively; consistently connect one area or idea of mathematics to another; and communicate mathematical ideas through a variety of representations.
- PROFICIENT: OPI score range: 700-797**  
Students demonstrate mastery over appropriate grade-level subject matter, and students are ready for the next grade level. Students scoring at the Proficient level typically will:
  - Recognize and predict patterns.
  - Compare and order whole numbers and fractions (halves, thirds, fourths, eighths, tenths, and twelfths).
  - Demonstrate fluency with basic multiplication concepts (including fact families).
  - Analyze the effects of combining and subdividing two- and three-dimensional figures.
  - Apply measurement concepts (including perimeter, length, weight, time, and temperature).
  - Analyze and interpret data in tables, graphs, and charts.
  - Understand and model place value (to 4 digits).
  - Estimate and find the sum or difference (with and without regrouping) of 3- and 4-digit numbers using a variety of strategies.
  - Compare attributes of two- and three-dimensional shapes.
  - Apply geometric properties and relationships (including coordinate locations).
  - Determine the correct amount of change when a purchase is made with five dollars or less.
  - Determine the likelihood of events and be able to predict outcomes.
- LIMITED KNOWLEDGE: OPI score range: 633-699**  
Students demonstrate partial mastery of the essential knowledge and skills appropriate to their grade level. Students scoring at the Limited Knowledge level are inconsistent in applying the general knowledge and mathematical process skills at the Proficient level necessary to solve problems effectively and reason mathematically.
- UNSATISFACTORY: OPI score range: 400-632**  
Students have not performed at least at the Limited Knowledge level. Students scoring at the Unsatisfactory level should be given comprehensive mathematics instruction.

# STUDENT REPORT

## Oklahoma Core Curriculum Tests (OCCT) Grade 3 Mathematics - Spring 2015

FNAME21 R LNAME21  
State Student ID: D030000021  
Birth Date: 09/24/2004

Demonstration School 1  
Demonstration District A  
Code: DEMONA-DE1

**FNAME21'S OPI Score & Performance Level in OCCT Grade 3 Mathematics: 804 / Advanced**

### Performance in each skill area

Standards and Objectives	Points Possible	Number Correct	Percent Correct	0	10	20	30	40	50	60	70	80	90	100
<b>Mathematics</b>														
<b>1.0 Algebraic Reasoning: Patterns and Relationships</b>														
1.1 Algebra Patterns	7	5	71											
1.2 Equations	2	NR												
1.3 Number Properties	2	NR												
<b>2.0 Number Sense and Operation</b>														
2.1 Number Sense	3	NR												
2.2 Number Operations	20	20	100											
<b>3.0 Geometry</b>														
3.1 Properties of Shapes	10	10	100											
3.2 Spatial Reasoning	2	NR												
3.3 Coordinate Geometry	2	NR												
<b>4.0 Measurement</b>														
4.1 Measurement	7	7	100											
4.2 Time and Temperature	9	6	67											
4.3 Money	4	2	50											
<b>5.0 Data Analysis</b>														
5.1 Data Analysis	2	NR												
5.2 Probability	3	NR												

NR = Not reported. Not enough items in the Standard or Objective to report.

The National Assessment for Educational Progress (NAEP), also known as the "Nation's Report Card", is the leading national assessment of what America's students know and can do in reading, mathematics, and several other academic subjects. Further information for parents and students is available at <http://nces.ed.gov/nationsreportcard>.

#### GLOSSARY OF TERMS

**OPI Score:** The Oklahoma Performance Index (OPI) is a scaled score used to place students into one of the four performance levels.

**Performance Level:** Different ranges of OPI scores define the four levels of performance — Advanced, Proficient, Limited Knowledge, and Unsatisfactory.

**Percent Correct:** A percent of the items in the standard or objective that were answered correctly by the students. This is calculated by dividing the number of items correct by the number possible in the standard or objective.

**Standard Met:** The Proficient level and the Advanced level are considered "meeting the standard".

# STUDENT REPORT

## Oklahoma Core Curriculum Tests (OCCT) Grade 3 Reading - Spring 2015

For the family of:  
**FNAME21 R LNAME21**  
 State Student ID: D030000021  
 Birth Date: 09/24/2004

Demonstration School 1  
 Demonstration District A  
 Code: DEMONA-DE1

### FNAME21'S performance on the OCCT Grade 3 Reading test



This report provides specific information about your student's performance on the Oklahoma Core Curriculum Tests (OCCT) Grade 3 Reading test. Students are tested throughout our state to ensure that they meet high standards based on the Oklahoma Academic Standards. These tests provide information for you to make informed decisions about your student's education. To learn more about your student's performance in school, talk to your student's teacher. Your student's success in school depends on your ongoing involvement.

OCCT Grade 3 Reading		FNAME21'S overall performance on the test is <b>LIMITED KNOWLEDGE</b> . Your student's performance level is based on the Oklahoma Performance Index.	
Meets State Goal	<b>ADVANCED</b>	990	<p>The performance level attained by your student indicates that your student can perform the majority of the skills described for that level and even more of what is described for the levels below. Your student may also be capable of performing some of the competencies described in the next higher level, but not enough to have reached that level of performance.</p> <p>Confirm your student's performance by reviewing classroom work, other standards-based assessments, and your student's progress reports during the year.</p> <p><i>A single exam can provide only limited information. A student taking the same test more than once might score higher or lower in each subject within a small range. If tested again, your student would likely score in this range: 669-711.</i></p>
	<b>PROFICIENT</b>	891	
		890	
Below State Goal	<b>LIMITED KNOWLEDGE</b>	700	
		699	
	<b>UNSATISFACTORY</b>	649	
		648	
	400	<b>690</b>	

(Standard Met = 700 or above)

### Performance Levels & OPI Score Ranges

**ADVANCED: OPI score range: 891-990**

Students demonstrate superior performance on challenging subject matter. These skills are broadly demonstrated in reading processes, response to text, and acquisition of information through research. In addition to demonstrating a broad and in-depth understanding and application of all skills at the Proficient performance level, students scoring at the Advanced level typically: use a wide range of strategies to interpret and evaluate text; regularly demonstrate a thorough and comprehensive understanding of literary forms; and consistently apply many different strategies for assessing, organizing, analyzing, synthesizing, and paraphrasing information.

**PROFICIENT: OPI score range: 700-890**

Students demonstrate mastery over appropriate grade-level subject matter, and students are ready for the next grade level. Students scoring at the Proficient level typically read and comprehend grade level reading material using the following skills:

- Utilize structural analysis, in combination with context clues and introductory resources, to determine the meaning of new words and multiple meanings of words.
- Make obvious inferences, draw conclusions, organize, classify, and compare/contrast.
- Analyze characters and events from a text.
- Distinguish between fact and opinion in various texts.
- Recognize characteristics of literary genres.
- Compare or contrast plots, settings, and characters between reading selections.
- Alphabetize to the third letter.
- Use functional print information resources such as dictionaries, charts, diagrams, etc.
- Answer literal questions about the reading selection.
- Identify and summarize major elements of story structure such as plot, setting, and characters, and are able to make logical predictions based on text information.
- Analyze causes, motivations, sequences, and results of events.
- Recognize relationships in narrative and expository text such as cause and effect or sequence.
- Determine and/or summarize the central purpose, main idea, theme, and important details.
- Identify simple figurative language and word sounds in a passage.
- Use guide words to locate information.

**LIMITED KNOWLEDGE: OPI score range: 649-699**

Students demonstrate partial mastery of the essential knowledge and skills appropriate to their grade level. Students scoring at the Limited Knowledge level are inconsistent in demonstrating the Proficient level competencies and typically demonstrate reading skills within more explicit and concrete contexts.

**UNSATISFACTORY: OPI score range: 400-648**

Students have not performed at least at the Limited Knowledge level. Students scoring at the Unsatisfactory level should be given comprehensive reading instruction.

#### Additional Resources and Information

Office of Assessment - 405-521-3341  
 Bilingual Education/Migrant Education - 405-521-2846  
 Special Education Services - 405-521-3351  
 Office of Instruction - 405-522-3521  
 Office of Accountability - 405-522-5169

#### Visit the Oklahoma Department of Education online

Go to the Oklahoma Department of Education's Web site at <http://www.ok.gov/sde>. Click on the Services tab and then on Assessment to access sample test questions, study materials, and practice test items. Report cards for your student's school can be accessed from the Department of Education's home page.



# STUDENT REPORT

## Oklahoma Core Curriculum Tests (OCCT) Grade 3 Reading - Spring 2015

FNAME21 R LNAME21  
State Student ID: D030000021  
Birth Date: 09/24/2004

Demonstration School 1  
Demonstration District A  
Code: DEMONA-DE1

**FNAME21'S OPI Score & Performance Level in OCCT Grade 3 Reading: 690 / Limited Knowledge**

### Performance in each skill area

Standards and Objectives	Points Possible	Number Correct	Percent Correct	0	10	20	30	40	50	60	70	80	90	100
<b>Reading</b>														
<b>2.0 Vocabulary</b>	<b>12</b>	<b>7</b>	<b>58</b>											
2.1 Words in Context	1	NR												
2.2 Affixes, Roots, and Stems	3	NR												
2.3 Synonyms, Antonyms, and Homonyms	5	3	60											
2.4 Using Resource Materials	3	NR												
<b>4.0 Comprehension/Critical Literacy</b>	<b>24</b>	<b>14</b>	<b>58</b>											
4.1 Literal Understanding	5	4	80											
4.2 Inferences and Interpretation	9	5	56											
4.3 Summary and Generalization	3	NR												
4.4 Analysis and Evaluation	7	4	57											
<b>5.0 Literature</b>	<b>8</b>	<b>3</b>	<b>38</b>											
5.2 Literary Elements	3	NR												
5.3 Figurative Language/Sound Devices	5	3	60											
<b>6.0 Research and Information</b>	<b>6</b>	<b>5</b>	<b>83</b>											
6.1 Accessing Information	6	5	83											

NR = Not reported. Not enough items in the Standard or Objective to report.

The National Assessment for Educational Progress (NAEP), also known as the "Nation's Report Card", is the leading national assessment of what America's students know and can do in reading, mathematics, and several other academic subjects. Further information for parents and students is available at <http://nces.ed.gov/nationsreportcard>.

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**Percent Correct:** A percent of the items in the standard or objective that were answered correctly by the students. This is calculated by dividing the number of items correct by the number possible in the standard or objective.

**Standard Met:** The Proficient level and the Advanced level are considered "meeting the standard".

**2014–2015 Oklahoma Core Curriculum Tests  
Slip Sheet**

**District Name:** Demonstration District A  
**School Name:** Demonstration School 1  
**School Code:** DEMONA-DE1  
**Grade/Content:** Grade 03 / All  
**Report Type:** Student Labels



0 1 R 0 F B 0



**Spring 14-15 OCCT Grade 3**

NO NAME PROVIDED

	<u>Subject</u>	<u>Score</u>	<u>Performance Level</u>
State ID: D03000006	Reading	787	Proficient
Birth Date: 10/08/2005			
Gender: F			
Grade: 3			

Demonstration School 1  
Demonstration District A

**Spring 14-15 OCCT Grade 3**

LNAME14, FNAME14 R.

	<u>Subject</u>	<u>Score</u>	<u>Performance Level</u>
State ID: D03000014	Reading	690	Limited Knowledge
Birth Date: 02/11/2006	Math	607	Unsatisfactory
Gender: F			
Grade: 3			

Demonstration School 1  
Demonstration District A

**Spring 14-15 OCCT Grade 3**

NO NAME PROVIDED

	<u>Subject</u>	<u>Score</u>	<u>Performance Level</u>
State ID: D03000005	Reading	750	Proficient
Birth Date: 07/27/2005	Math	779	Proficient
Gender: M			
Grade: 3			

Demonstration School 1  
Demonstration District A

**Spring 14-15 OCCT Grade 3**

LNAME15, FNAME15 M.

	<u>Subject</u>	<u>Score</u>	<u>Performance Level</u>
State ID: D03000015	Reading	712	Proficient
Birth Date: 02/01/2006	Math	712	Proficient
Gender: F			
Grade: 3			

Demonstration School 1  
Demonstration District A

**Spring 14-15 OCCT Grade 3**

LNAME11, FNAME11 D.

	<u>Subject</u>	<u>Score</u>	<u>Performance Level</u>
State ID: D03000011	Reading	621	Unsatisfactory
Birth Date: 05/06/2005			
Gender: M			
Grade: 3			

Demonstration School 1  
Demonstration District A

**Spring 14-15 OCCT Grade 3**

LNAME16, FNAME16 N.

	<u>Subject</u>	<u>Score</u>	<u>Performance Level</u>
State ID: D03000016	Reading	777	Proficient
Birth Date: 06/23/2006	Math	698	Limited Knowledge
Gender: F			
Grade: 3			

Demonstration School 1  
Demonstration District A

**Spring 14-15 OCCT Grade 3**

LNAME12, FNAME12 R.

	<u>Subject</u>	<u>Score</u>	<u>Performance Level</u>
State ID: D03000012	Reading	602	Unsatisfactory
Birth Date: 04/29/2005			
Gender: F			
Grade: 3			

Demonstration School 1  
Demonstration District A

**Spring 14-15 OCCT Grade 3**

LNAME17, FNAME17 M.

	<u>Subject</u>	<u>Score</u>	<u>Performance Level</u>
State ID: D03000017	Reading	798	Proficient
Birth Date: 10/28/2005			
Gender: M			
Grade: 3			

Demonstration School 1  
Demonstration District A

**Spring 14-15 OCCT Grade 3**

LNAME13, FNAME13 M.

	<u>Subject</u>	<u>Score</u>	<u>Performance Level</u>
State ID: D03000013	Reading	712	Proficient
Birth Date: 08/31/2004			
Gender: F			
Grade: 3			

Demonstration School 1  
Demonstration District A

**Spring 14-15 OCCT Grade 3**

LNAME18, FNAME18 A.

	<u>Subject</u>	<u>Score</u>	<u>Performance Level</u>
State ID: D03000018	Reading	591	Unsatisfactory
Birth Date: 01/07/2005			
Gender: M			
Grade: 3			

Demonstration School 1  
Demonstration District A

# Summary Report

Summary Counts of Total Tested

## Oklahoma Core Curriculum Tests (OCCT) Grade 3 Mathematics - Spring 2015



School report for:  
**DEMONSTRATION SCHOOL 1**

District: Demonstration District A  
Code: DEMONA-DE1

**OCCT Grade 3 Mathematics**

**CONFIDENTIAL**

**Purpose:**

To communicate to schools and districts summary test results of all students, in disaggregated and aggregated forms, showing the extent to which the competencies in the Oklahoma Academic Standards, Oklahoma's core curriculum, have been mastered.

**This Report Contains the Following Information:**

- Summary Counts of Total Tested
- Disaggregated Group Results by Performance Level
- Disaggregated Group Results by Standards and Objectives

**Information about the terms and calculations within this report:**

**All Students**

- Excludes Other Placement (OP) from all aggregate result calculations.
- Performance Level and OPI aggregate calculations are reported for Operational, and Equivalent (EQ), and Braille (BR) tests.
- Standards and Objectives raw score aggregate calculations are reported for Operational and Equivalent (EQ) tests independently, when applicable. Braille (BR) tests are excluded.

**Regular Education** is the subset of *All Students* excluding Special Education (IEP) and English Language Learners (ELL).

**Special Population** is the subset of *All Students* that are Special Education (IEP) or English Language Learners (ELL).

<b>SUMMARY COUNTS OF TOTAL TESTED</b>			
<b>Student Test Status</b>	<b>All Students</b>	<b>OCCT</b>	<b>Equivalent</b>
Total Enrolled	14	14	0
Total Tested	13	13	0
Other Placement	0	0	0
Absent	0	0	0
Did Not Attempt	0	0	0
ELL 1st Year Attempt	0	0	0
Emergency Exempt	0	0	0
Invalidated	0	0	0
Alternate Test Taker	1	1	0
Test Mode			
Online	0	0	0
Paper	13	13	0
Braille	0	0	0

# Summary Report

Disaggregated Group Results by  
Performance Level

## Oklahoma Core Curriculum Tests (OCCT) Grade 3 Mathematics - Spring 2015



School report for:  
**DEMONSTRATION SCHOOL 1**

District: Demonstration District A  
Code: DEMONA-DE1

**OCCT Grade 3 Mathematics**

**CONFIDENTIAL**

**FAY**

FULL ACADEMIC YEAR (FAY) (Only FAY scores are used for Accountability)	NUMBER AND PERCENT AT EACH PERFORMANCE LEVEL									
	Number of Valid Scores	OPI Score Range 798-990		OPI Score Range 700-797		OPI Score Range 633-699		OPI Score Range 400-632		Mean OPI Score
		ADVANCED		PROFICIENT		LIMITED KNOWLEDGE		UNSATISFACTORY		
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	
<b>ALL STUDENTS</b>	<b>13</b>	<b>1</b>	<b>8</b>	<b>4</b>	<b>31</b>	<b>4</b>	<b>31</b>	<b>4</b>	<b>31</b>	<b>680</b>
<b>Ethnicity</b>										
Hispanic or Latino	3	1	33	0	0	1	33	1	33	688
<b>Race</b>										
American Indian/Alaskan Native	1	0	0	0	0	0	0	1	100	623
Asian	0									
Black/African American	1	0	0	0	0	0	0	1	100	557
Pacific Islander	0									
White/Caucasian	8	0	0	4	50	3	38	1	13	699
Two or More Races	0									
<b>Gender</b>										
Female	6	0	0	1	17	3	50	2	33	655
Male	7	1	14	3	43	1	14	2	29	701
Not Indicated	0									
<b>Other</b>										
Economically Disadvantaged	12	1	8	4	33	3	25	4	33	678
Non-Economically Disadvantaged	1	0	0	0	0	1	100	0	0	698
Migrant	0									
Non-Migrant	13	1	8	4	31	4	31	4	31	680
ELL 1st - Year Proficient	0									
ELL 2nd - Year Proficient	0									
<b>Individual Education Program (IEP)</b>	<b>0</b>									
IEP with Accommodations	0									
IEP without Accommodations	0									
<b>Plan 504</b>	<b>0</b>									
Plan 504 with Accommodations	0									
Plan 504 without Accommodations	0									
<b>English Language Learners (ELL)</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>100</b>	<b>615</b>
ELL with Accommodations	0									
ELL without Accommodations	1	0	0	0	0	0	0	1	100	615
<b>Non-English Language Learners (Non-ELL)</b>	<b>12</b>	<b>1</b>	<b>8</b>	<b>4</b>	<b>33</b>	<b>4</b>	<b>33</b>	<b>3</b>	<b>25</b>	<b>685</b>

# Summary Report

Disaggregated Group Results by  
Performance Level

## Oklahoma Core Curriculum Tests (OCCT) Grade 3 Mathematics - Spring 2015



School report for:  
**DEMONSTRATION SCHOOL 1**

District: Demonstration District A  
Code: DEMONA-DE1

**OCCT Grade 3 Mathematics**

**CONFIDENTIAL**

**FAY**

FULL ACADEMIC YEAR (FAY) (Only FAY scores are used for Accountability)	NUMBER AND PERCENT AT EACH PERFORMANCE LEVEL									
	Number of Valid Scores	OPI Score Range 798-990		OPI Score Range 700-797		OPI Score Range 633-699		OPI Score Range 400-632		Mean OPI Score
		ADVANCED		PROFICIENT		LIMITED KNOWLEDGE		UNSATISFACTORY		
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	
<b>REGULAR EDUCATION</b>	<b>12</b>	<b>1</b>	<b>8</b>	<b>4</b>	<b>33</b>	<b>4</b>	<b>33</b>	<b>3</b>	<b>25</b>	<b>685</b>
<b>Ethnicity</b>										
Hispanic or Latino	2	1	50	0	0	1	50	0	0	725
<b>Race</b>										
American Indian/Alaskan Native	1	0	0	0	0	0	0	1	100	623
Asian	0									
Black/African American	1	0	0	0	0	0	0	1	100	557
Pacific Islander	0									
White/Caucasian	8	0	0	4	50	3	38	1	13	699
Two or More Races	0									
<b>Gender</b>										
Female	5	0	0	1	20	3	60	1	20	663
Male	7	1	14	3	43	1	14	2	29	701
Not Indicated	0									
<b>Other</b>										
Economically Disadvantaged	11	1	9	4	36	3	27	3	27	684
Non-Economically Disadvantaged	1	0	0	0	0	1	100	0	0	698
Migrant	0									
Non-Migrant	12	1	8	4	33	4	33	3	25	685
ELL 1st - Year Proficient	0									
ELL 2nd - Year Proficient	0									
<b>Individual Education Program (IEP)</b>	<b>0</b>									
IEP with Accommodations	0									
IEP without Accommodations	0									
<b>Plan 504</b>	<b>0</b>									
Plan 504 with Accommodations	0									
Plan 504 without Accommodations	0									
<b>English Language Learners (ELL)</b>	<b>0</b>									
ELL with Accommodations	0									
ELL without Accommodations	0									
<b>Non-English Language Learners (Non-ELL)</b>	<b>12</b>	<b>1</b>	<b>8</b>	<b>4</b>	<b>33</b>	<b>4</b>	<b>33</b>	<b>3</b>	<b>25</b>	<b>685</b>

# Summary Report

Disaggregated Group Results by Performance Level

## Oklahoma Core Curriculum Tests (OCCT) Grade 3 Mathematics - Spring 2015



School report for:  
**DEMONSTRATION SCHOOL 1**

District: Demonstration District A  
Code: DEMONA-DE1

**OCCT Grade 3 Mathematics**

**CONFIDENTIAL**

**FAY**

FULL ACADEMIC YEAR (FAY)  (Only FAY scores are used for Accountability)	NUMBER AND PERCENT AT EACH PERFORMANCE LEVEL									
	Number of Valid Scores	OPI Score Range 798-990		OPI Score Range 700-797		OPI Score Range 633-699		OPI Score Range 400-632		Mean OPI Score
		ADVANCED		PROFICIENT		LIMITED KNOWLEDGE		UNSATISFACTORY		
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	
<b>SPECIAL POPULATION</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>100</b>	<b>615</b>
<b>Ethnicity</b>										
Hispanic or Latino	1	0	0	0	0	0	0	1	100	615
<b>Race</b>										
American Indian/Alaskan Native	0									
Asian	0									
Black/African American	0									
Pacific Islander	0									
White/Caucasian	0									
Two or More Races	0									
<b>Gender</b>										
Female	1	0	0	0	0	0	0	1	100	615
Male	0									
Not Indicated	0									
<b>Other</b>										
Economically Disadvantaged	1	0	0	0	0	0	0	1	100	615
Non-Economically Disadvantaged	0									
Migrant	0									
Non-Migrant	1	0	0	0	0	0	0	1	100	615
ELL 1st - Year Proficient	0									
ELL 2nd - Year Proficient	0									
<b>Individual Education Program (IEP)</b>	<b>0</b>									
IEP with Accommodations	0									
IEP without Accommodations	0									
<b>Plan 504</b>	<b>0</b>									
Plan 504 with Accommodations	0									
Plan 504 without Accommodations	0									
<b>English Language Learners (ELL)</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>100</b>	<b>615</b>
ELL with Accommodations	0									
ELL without Accommodations	1	0	0	0	0	0	0	1	100	615
<b>Non-English Language Learners (Non-ELL)</b>	<b>0</b>									

# Summary Report

Disaggregated Group Results by Performance Level

## Oklahoma Core Curriculum Tests (OCCT) Grade 3 Mathematics - Spring 2015



School report for:  
**DEMONSTRATION SCHOOL 1**

District: Demonstration District A  
Code: DEMONA-DE1

**OCCT Grade 3 Mathematics**

**CONFIDENTIAL**

**NFAY**

NON-FULL ACADEMIC YEAR (NFAY)	NUMBER AND PERCENT AT EACH PERFORMANCE LEVEL										Mean OPI Score
	Number of Valid Scores	OPI Score Range 798-990		OPI Score Range 700-797		OPI Score Range 633-699		OPI Score Range 400-632			
		ADVANCED		PROFICIENT		LIMITED KNOWLEDGE		UNSATISFACTORY			
		Number	Percent	Number	Percent	Number	Percent	Number	Percent		
<b>ALL STUDENTS</b>	<b>0</b>										
<b>Ethnicity</b>											
Hispanic or Latino	0										
<b>Race</b>											
American Indian/Alaskan Native	0										
Asian	0										
Black/African American	0										
Pacific Islander	0										
White/Caucasian	0										
Two or More Races	0										
<b>Gender</b>											
Female	0										
Male	0										
Not Indicated	0										
<b>Other</b>											
Economically Disadvantaged	0										
Non-Economically Disadvantaged	0										
Migrant	0										
Non-Migrant	0										
ELL 1st - Year Proficient	0										
ELL 2nd - Year Proficient	0										
<b>Individual Education Program (IEP)</b>	<b>0</b>										
IEP with Accommodations	0										
IEP without Accommodations	0										
<b>Plan 504</b>	<b>0</b>										
Plan 504 with Accommodations	0										
Plan 504 without Accommodations	0										
<b>English Language Learners (ELL)</b>	<b>0</b>										
ELL with Accommodations	0										
ELL without Accommodations	0										
<b>Non-English Language Learners (Non-ELL)</b>	<b>0</b>										



# Summary Report

Disaggregated Group Results by Performance Level

## Oklahoma Core Curriculum Tests (OCCT) Grade 3 Mathematics - Spring 2015



School report for:  
**DEMONSTRATION SCHOOL 1**

District: Demonstration District A  
Code: DEMONA-DE1

**OCCT Grade 3 Mathematics**

**CONFIDENTIAL**

**NFAY**

NON-FULL ACADEMIC YEAR (NFAY)	NUMBER AND PERCENT AT EACH PERFORMANCE LEVEL										Mean OPI Score
	Number of Valid Scores	OPI Score Range 798-990		OPI Score Range 700-797		OPI Score Range 633-699		OPI Score Range 400-632			
		ADVANCED		PROFICIENT		LIMITED KNOWLEDGE		UNSATISFACTORY			
		Number	Percent	Number	Percent	Number	Percent	Number	Percent		
<b>REGULAR EDUCATION</b>	<b>0</b>										
<b>Ethnicity</b>											
Hispanic or Latino	0										
<b>Race</b>											
American Indian/Alaskan Native	0										
Asian	0										
Black/African American	0										
Pacific Islander	0										
White/Caucasian	0										
Two or More Races	0										
<b>Gender</b>											
Female	0										
Male	0										
Not Indicated	0										
<b>Other</b>											
Economically Disadvantaged	0										
Non-Economically Disadvantaged	0										
Migrant	0										
Non-Migrant	0										
ELL 1st - Year Proficient	0										
ELL 2nd - Year Proficient	0										
<b>Individual Education Program (IEP)</b>	<b>0</b>										
IEP with Accommodations	0										
IEP without Accommodations	0										
<b>Plan 504</b>	<b>0</b>										
Plan 504 with Accommodations	0										
Plan 504 without Accommodations	0										
<b>English Language Learners (ELL)</b>	<b>0</b>										
ELL with Accommodations	0										
ELL without Accommodations	0										
<b>Non-English Language Learners (Non-ELL)</b>	<b>0</b>										

# Summary Report

Disaggregated Group Results by  
Performance Level

## Oklahoma Core Curriculum Tests (OCCT) Grade 3 Mathematics - Spring 2015



School report for:  
**DEMONSTRATION SCHOOL 1**

District: Demonstration District A  
Code: DEMONA-DE1

**OCCT Grade 3 Mathematics**

**CONFIDENTIAL**

**NFAY**

NON-FULL ACADEMIC YEAR (NFAY)	NUMBER AND PERCENT AT EACH PERFORMANCE LEVEL										Mean OPI Score
	Number of Valid Scores	OPI Score Range 798-990		OPI Score Range 700-797		OPI Score Range 633-699		OPI Score Range 400-632			
		ADVANCED		PROFICIENT		LIMITED KNOWLEDGE		UNSATISFACTORY			
		Number	Percent	Number	Percent	Number	Percent	Number	Percent		
<b>SPECIAL POPULATION</b>	<b>0</b>										
<b>Ethnicity</b>											
Hispanic or Latino	0										
<b>Race</b>											
American Indian/Alaskan Native	0										
Asian	0										
Black/African American	0										
Pacific Islander	0										
White/Caucasian	0										
Two or More Races	0										
<b>Gender</b>											
Female	0										
Male	0										
Not Indicated	0										
<b>Other</b>											
Economically Disadvantaged	0										
Non-Economically Disadvantaged	0										
Migrant	0										
Non-Migrant	0										
ELL 1st - Year Proficient	0										
ELL 2nd - Year Proficient	0										
<b>Individual Education Program (IEP)</b>	<b>0</b>										
IEP with Accommodations	0										
IEP without Accommodations	0										
<b>Plan 504</b>	<b>0</b>										
Plan 504 with Accommodations	0										
Plan 504 without Accommodations	0										
<b>English Language Learners (ELL)</b>	<b>0</b>										
ELL with Accommodations	0										
ELL without Accommodations	0										
<b>Non-English Language Learners (Non-ELL)</b>	<b>0</b>										

# Summary Report

Disaggregated Group Results by Performance Level

## Oklahoma Core Curriculum Tests (OCCT) Grade 3 Mathematics - Spring 2015



School report for:  
**DEMONSTRATION SCHOOL 1**

District: Demonstration District A  
Code: DEMONA-DE1

**OCCT Grade 3 Mathematics**

**CONFIDENTIAL**

**Total Tested**

TOTAL TESTED (FAY and NFAY)	NUMBER AND PERCENT AT EACH PERFORMANCE LEVEL									
	Number of Valid Scores	OPI Score Range 798-990		OPI Score Range 700-797		OPI Score Range 633-699		OPI Score Range 400-632		Mean OPI Score
		ADVANCED		PROFICIENT		LIMITED KNOWLEDGE		UNSATISFACTORY		
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	
<b>ALL STUDENTS</b>	<b>13</b>	<b>1</b>	<b>8</b>	<b>4</b>	<b>31</b>	<b>4</b>	<b>31</b>	<b>4</b>	<b>31</b>	<b>680</b>
<b>Ethnicity</b>										
Hispanic or Latino	3	1	33	0	0	1	33	1	33	688
<b>Race</b>										
American Indian/Alaskan Native	1	0	0	0	0	0	0	1	100	623
Asian	0									
Black/African American	1	0	0	0	0	0	0	1	100	557
Pacific Islander	0									
White/Caucasian	8	0	0	4	50	3	38	1	13	699
Two or More Races	0									
<b>Gender</b>										
Female	6	0	0	1	17	3	50	2	33	655
Male	7	1	14	3	43	1	14	2	29	701
Not Indicated	0									
<b>Other</b>										
Economically Disadvantaged	12	1	8	4	33	3	25	4	33	678
Non-Economically Disadvantaged	1	0	0	0	0	1	100	0	0	698
Migrant	0									
Non-Migrant	13	1	8	4	31	4	31	4	31	680
ELL 1st - Year Proficient	0									
ELL 2nd - Year Proficient	0									
<b>Individual Education Program (IEP)</b>	<b>0</b>									
IEP with Accommodations	0									
IEP without Accommodations	0									
<b>Plan 504</b>	<b>0</b>									
Plan 504 with Accommodations	0									
Plan 504 without Accommodations	0									
<b>English Language Learners (ELL)</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>100</b>	<b>615</b>
ELL with Accommodations	0									
ELL without Accommodations	1	0	0	0	0	0	0	1	100	615
<b>Non-English Language Learners (Non-ELL)</b>	<b>12</b>	<b>1</b>	<b>8</b>	<b>4</b>	<b>33</b>	<b>4</b>	<b>33</b>	<b>3</b>	<b>25</b>	<b>685</b>

# Summary Report

Disaggregated Group Results by  
Performance Level

## Oklahoma Core Curriculum Tests (OCCT) Grade 3 Mathematics - Spring 2015



School report for:  
**DEMONSTRATION SCHOOL 1**

District: Demonstration District A  
Code: DEMONA-DE1

**OCCT Grade 3 Mathematics**

**CONFIDENTIAL**

**Total Tested**

TOTAL TESTED (FAY and NFAY)	NUMBER AND PERCENT AT EACH PERFORMANCE LEVEL									
	Number of Valid Scores	OPI Score Range 798-990		OPI Score Range 700-797		OPI Score Range 633-699		OPI Score Range 400-632		Mean OPI Score
		ADVANCED		PROFICIENT		LIMITED KNOWLEDGE		UNSATISFACTORY		
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	
<b>REGULAR EDUCATION</b>	<b>12</b>	<b>1</b>	<b>8</b>	<b>4</b>	<b>33</b>	<b>4</b>	<b>33</b>	<b>3</b>	<b>25</b>	<b>685</b>
<b>Ethnicity</b>										
Hispanic or Latino	2	1	50	0	0	1	50	0	0	725
<b>Race</b>										
American Indian/Alaskan Native	1	0	0	0	0	0	0	1	100	623
Asian	0									
Black/African American	1	0	0	0	0	0	0	1	100	557
Pacific Islander	0									
White/Caucasian	8	0	0	4	50	3	38	1	13	699
Two or More Races	0									
<b>Gender</b>										
Female	5	0	0	1	20	3	60	1	20	663
Male	7	1	14	3	43	1	14	2	29	701
Not Indicated	0									
<b>Other</b>										
Economically Disadvantaged	11	1	9	4	36	3	27	3	27	684
Non-Economically Disadvantaged	1	0	0	0	0	1	100	0	0	698
Migrant	0									
Non-Migrant	12	1	8	4	33	4	33	3	25	685
ELL 1st - Year Proficient	0									
ELL 2nd - Year Proficient	0									
<b>Individual Education Program (IEP)</b>	<b>0</b>									
IEP with Accommodations	0									
IEP without Accommodations	0									
<b>Plan 504</b>	<b>0</b>									
Plan 504 with Accommodations	0									
Plan 504 without Accommodations	0									
<b>English Language Learners (ELL)</b>	<b>0</b>									
ELL with Accommodations	0									
ELL without Accommodations	0									
<b>Non-English Language Learners (Non-ELL)</b>	<b>12</b>	<b>1</b>	<b>8</b>	<b>4</b>	<b>33</b>	<b>4</b>	<b>33</b>	<b>3</b>	<b>25</b>	<b>685</b>

# Summary Report

Disaggregated Group Results by  
Performance Level

## Oklahoma Core Curriculum Tests (OCCT) Grade 3 Mathematics - Spring 2015



School report for:  
**DEMONSTRATION SCHOOL 1**

District: Demonstration District A  
Code: DEMONA-DE1

**OCCT Grade 3 Mathematics**

**CONFIDENTIAL**

**Total Tested**

TOTAL TESTED (FAY and NFAY)	NUMBER AND PERCENT AT EACH PERFORMANCE LEVEL									
	Number of Valid Scores	OPI Score Range 798-990		OPI Score Range 700-797		OPI Score Range 633-699		OPI Score Range 400-632		Mean OPI Score
		ADVANCED		PROFICIENT		LIMITED KNOWLEDGE		UNSATISFACTORY		
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	
<b>SPECIAL POPULATION</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>100</b>	<b>615</b>
<b>Ethnicity</b>										
Hispanic or Latino	1	0	0	0	0	0	0	1	100	615
<b>Race</b>										
American Indian/Alaskan Native	0									
Asian	0									
Black/African American	0									
Pacific Islander	0									
White/Caucasian	0									
Two or More Races	0									
<b>Gender</b>										
Female	1	0	0	0	0	0	0	1	100	615
Male	0									
Not Indicated	0									
<b>Other</b>										
Economically Disadvantaged	1	0	0	0	0	0	0	1	100	615
Non-Economically Disadvantaged	0									
Migrant	0									
Non-Migrant	1	0	0	0	0	0	0	1	100	615
ELL 1st - Year Proficient	0									
ELL 2nd - Year Proficient	0									
<b>Individual Education Program (IEP)</b>	<b>0</b>									
IEP with Accommodations	0									
IEP without Accommodations	0									
<b>Plan 504</b>	<b>0</b>									
Plan 504 with Accommodations	0									
Plan 504 without Accommodations	0									
<b>English Language Learners (ELL)</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>100</b>	<b>615</b>
ELL with Accommodations	0									
ELL without Accommodations	1	0	0	0	0	0	0	1	100	615
<b>Non-English Language Learners (Non-ELL)</b>	<b>0</b>									

# Summary Report

Disaggregated Group Results by Standards and Objectives

## Oklahoma Core Curriculum Tests (OCCT) Grade 3 Mathematics - Spring 2015



School report for:  
**DEMONSTRATION SCHOOL 1**

District: Demonstration District A  
Code: DEMONA-DE1

OCCT Grade 3 Mathematics

**CONFIDENTIAL**

Operational Test

MEAN PERCENT CORRECT BY STANDARDS AND OBJECTIVES		Points Possible	FULL ACADEMIC YEAR (FAY)					NON-FULL ACADEMIC YEAR (NFAY)					TOTAL TESTED (FAY plus NFAY)				
			Regular Education	English Language Learners (ELL)	Non-English Language Learners (Non-ELL)	Individual Education Program (IEP)	All Students	Regular Education	English Language Learners (ELL)	Non-English Language Learners (Non-ELL)	Individual Education Program (IEP)	All Students	Regular Education	English Language Learners (ELL)	Non-English Language Learners (Non-ELL)	Individual Education Program (IEP)	All Students
Number of Valid Scores			12	1	12	0	13	0	0	0	0	0	12	1	12	0	13
<b>Mathematics</b>																	
<b>1.0 Algebraic Reasoning: Patterns and Relationships</b>			<b>7</b>	<b>68</b>	<b>71</b>	<b>68</b>		<b>68</b>					<b>68</b>	<b>71</b>	<b>68</b>		<b>68</b>
1.1 Algebra Patterns			2	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1.2 Equations			2	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1.3 Number Properties			3	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
<b>2.0 Number Sense and Operation</b>			<b>20</b>	<b>61</b>	<b>50</b>	<b>61</b>		<b>60</b>					<b>61</b>	<b>50</b>	<b>61</b>		<b>60</b>
2.1 Number Sense			10	74	60	74		73					74	60	74		73
2.2 Number Operations			10	48	40	48		48					48	40	48		48
<b>3.0 Geometry</b>			<b>7</b>	<b>75</b>	<b>71</b>	<b>75</b>		<b>75</b>					<b>75</b>	<b>71</b>	<b>75</b>		<b>75</b>
3.1 Properties of Shapes			3	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
3.2 Spatial Reasoning			2	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
3.3 Coordinate Geometry			2	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
<b>4.0 Measurement</b>			<b>9</b>	<b>53</b>	<b>11</b>	<b>53</b>		<b>50</b>					<b>53</b>	<b>11</b>	<b>53</b>		<b>50</b>
4.1 Measurement			4	60	0	60		56					60	0	60		56
4.2 Time and Temperature			2	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4.3 Money			3	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
<b>5.0 Data Analysis</b>			<b>7</b>	<b>55</b>	<b>0</b>	<b>55</b>		<b>51</b>					<b>55</b>	<b>0</b>	<b>55</b>		<b>51</b>
5.1 Data Analysis			4	50	0	50		46					50	0	50		46
5.2 Probability			3	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

# CLASS SUMMARY REPORT

## Oklahoma Core Curriculum Tests (OCCT) Grade 3 Mathematics - Spring 2015



Classroom report for:  
**DEMOCLASS1**

School: Demonstration School 1  
District: Demonstration District A  
Code: DEMONA-DE1

OCCT Grade 3 Mathematics

**CONFIDENTIAL**

FAY

### Purpose:

To communicate to teachers the class summary results of all students tested showing the extent to which the competencies in the Oklahoma Academic Standards, Oklahoma's core curriculum, have been mastered.

### OCCT Performance Level & OPI<sup>†</sup> Score Range

Advanced	798-990
Proficient	700-797
Limited Knowledge	633-699
Unsatisfactory	400-632

<sup>†</sup>OPI: The Oklahoma Performance Index is a scale score that places a student into one of four performance levels listed above.

**OP** - Other Placement (OP) are excluded from all results.

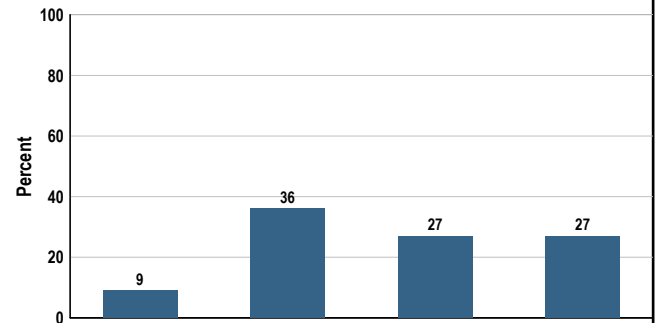
**BR** - Braille (BR) are excluded from only the standards and objectives

### PERFORMANCE LEVEL ACHIEVEMENT FOR YOUR CLASS

Mean OPI Score: 685  
( Proficient = 700 or above )

Number of Valid Scores: 11

Percent of Students at each Performance Level



Performance Level:	Advanced	Proficient	Limited Knowledge	Unsatisfactory
OPI Score Range:	798-990	700-797	633-699	400-632
Valid Scores:	1	4	3	3

### OCCT PERFORMANCE LEVELS, OPI SCORE RANGES, AND PERFORMANCE LEVEL DESCRIPTORS

#### ADVANCED: OPI score range: 798-990

Students demonstrate superior performance on challenging subject matter. In addition to demonstrating a broad and in-depth understanding and application of all skills at the Proficient level, students scoring at the Advanced level typically: use a wide range of strategies to solve problems; regularly use various types of reasoning effectively; consistently connect one area or idea of mathematics to another; and communicate mathematical ideas through a variety of representations.

#### PROFICIENT: OPI score range: 700-797

Students demonstrate mastery over appropriate grade-level subject matter, and students are ready for the next grade level. Students scoring at the Proficient level typically will:

- Recognize and predict patterns.
- Compare and order whole numbers and fractions (halves, thirds, fourths, eighths, tenths, and twelfths).
- Demonstrate fluency with basic multiplication concepts (including fact families).
- Analyze the effects of combining and subdividing two- and three-dimensional figures.
- Apply measurement concepts (including perimeter, length, weight, time, and temperature).
- Analyze and interpret data in tables, graphs, and charts.
- Understand and model place value (to 4 digits).
- Estimate and find the sum or difference (with and without regrouping) of 3- and 4-digit numbers using a variety of strategies.
- Compare attributes of two- and three-dimensional shapes.
- Apply geometric properties and relationships (including coordinate locations).
- Determine the correct amount of change when a purchase is made with five dollars or less.
- Determine the likelihood of events and be able to predict outcomes.

#### LIMITED KNOWLEDGE: OPI score range: 633-699

Students demonstrate partial mastery of the essential knowledge and skills appropriate to their grade level. Students scoring at the Limited Knowledge level are inconsistent in applying the general knowledge and mathematical process skills at the Proficient level necessary to solve problems effectively and reason mathematically.

#### UNSATISFACTORY: OPI score range: 400-632

Students have not performed at least at the Limited Knowledge level. Students scoring at the Unsatisfactory level should be given comprehensive mathematics instruction.

# CLASS SUMMARY REPORT

## Oklahoma Core Curriculum Tests (OCCT) Grade 3 Mathematics - Spring 2015



Classroom report for:  
**DEMOCLASS1**

School: Demonstration School 1  
District: Demonstration District A  
Code: DEMONA-DE1

OCCT Grade 3 Mathematics

**CONFIDENTIAL**

Operational - FAY

### STANDARDS AND OBJECTIVES MEAN PERCENT CORRECT

Standards and Objectives	Points Possible	Class Mean Percent Correct																		
			0	10	20	30	40	50	60	70	80	90	100							
<b>Mathematics</b>																				
<b>1.0 Algebraic Reasoning: Patterns and Relationships</b>	<b>7</b>	<b>70</b>																		
1.1 Algebra Patterns	2	NR																		
1.2 Equations	2	NR																		
1.3 Number Properties	3	NR																		
<b>2.0 Number Sense and Operation</b>	<b>20</b>	<b>62</b>																		
2.1 Number Sense	10	74																		
2.2 Number Operations	10	50																		
<b>3.0 Geometry</b>	<b>7</b>	<b>75</b>																		
3.1 Properties of Shapes	3	NR																		
3.2 Spatial Reasoning	2	NR																		
3.3 Coordinate Geometry	2	NR																		
<b>4.0 Measurement</b>	<b>9</b>	<b>53</b>																		
4.1 Measurement	4	59																		
4.2 Time and Temperature	2	NR																		
4.3 Money	3	NR																		
<b>5.0 Data Analysis</b>	<b>7</b>	<b>51</b>																		
5.1 Data Analysis	4	43																		
5.2 Probability	3	NR																		

NR = Not reported. Not enough items in the Standard or Objective to report.



# CLASS SUMMARY REPORT

## Oklahoma Core Curriculum Tests (OCCT) Grade 3 Mathematics - Spring 2015



Classroom report for:  
**DEMOCLASS1**

School: Demonstration School 1  
District: Demonstration District A  
Code: DEMONA-DE1

OCCT Grade 3 Mathematics

**CONFIDENTIAL**

NFA Y

### Purpose:

To communicate to teachers the class summary results of all students tested showing the extent to which the competencies in the Oklahoma Academic Standards, Oklahoma's core curriculum, have been mastered.

### OCCT Performance Level & OPI<sup>†</sup> Score Range

Advanced	798-990
Proficient	700-797
Limited Knowledge	633-699
Unsatisfactory	400-632

<sup>†</sup>OPI: The Oklahoma Performance Index is a scale score that places a student into one of four performance levels listed above.

**OP** - Other Placement (OP) are excluded from all results.

**BR** - Braille (BR) are excluded from only the standards and objectives

### PERFORMANCE LEVEL ACHIEVEMENT FOR YOUR CLASS

Mean OPI Score:  
( Proficient = 700 or above )

Number of Valid Scores: 0

Percent of Students at each Performance Level



Performance Level:	Advanced	Proficient	Limited Knowledge	Unsatisfactory
OPI Score Range:	798-990	700-797	633-699	400-632
Valid Scores:	0	0	0	0

### OCCT PERFORMANCE LEVELS, OPI SCORE RANGES, AND PERFORMANCE LEVEL DESCRIPTORS

#### ADVANCED: OPI score range: 798-990

Students demonstrate superior performance on challenging subject matter. In addition to demonstrating a broad and in-depth understanding and application of all skills at the Proficient level, students scoring at the Advanced level typically: use a wide range of strategies to solve problems; regularly use various types of reasoning effectively; consistently connect one area or idea of mathematics to another; and communicate mathematical ideas through a variety of representations.

#### PROFICIENT: OPI score range: 700-797

Students demonstrate mastery over appropriate grade-level subject matter, and students are ready for the next grade level. Students scoring at the Proficient level typically will:

- Recognize and predict patterns.
- Compare and order whole numbers and fractions (halves, thirds, fourths, eighths, tenths, and twelfths).
- Demonstrate fluency with basic multiplication concepts (including fact families).
- Analyze the effects of combining and subdividing two- and three-dimensional figures.
- Apply measurement concepts (including perimeter, length, weight, time, and temperature).
- Analyze and interpret data in tables, graphs, and charts.
- Understand and model place value (to 4 digits).
- Estimate and find the sum or difference (with and without regrouping) of 3- and 4-digit numbers using a variety of strategies.
- Compare attributes of two- and three-dimensional shapes.
- Apply geometric properties and relationships (including coordinate locations).
- Determine the correct amount of change when a purchase is made with five dollars or less.
- Determine the likelihood of events and be able to predict outcomes.

#### LIMITED KNOWLEDGE: OPI score range: 633-699

Students demonstrate partial mastery of the essential knowledge and skills appropriate to their grade level. Students scoring at the Limited Knowledge level are inconsistent in applying the general knowledge and mathematical process skills at the Proficient level necessary to solve problems effectively and reason mathematically.

#### UNSATISFACTORY: OPI score range: 400-632

Students have not performed at least at the Limited Knowledge level. Students scoring at the Unsatisfactory level should be given comprehensive mathematics instruction.

# CLASS SUMMARY REPORT

## Oklahoma Core Curriculum Tests (OCCT) Grade 3 Mathematics - Spring 2015



Classroom report for:  
**DEMOCLASS1**

School: Demonstration School 1  
District: Demonstration District A  
Code: DEMONA-DE1

OCCT Grade 3 Mathematics

**CONFIDENTIAL**

Operational - NFAY

### STANDARDS AND OBJECTIVES MEAN PERCENT CORRECT

Standards and Objectives	Points Possible	Class Mean Percent Correct												
		0	10	20	30	40	50	60	70	80	90	100		
<b>Mathematics</b>														
<b>1.0 Algebraic Reasoning: Patterns and Relationships</b>	7													
1.1 Algebra Patterns	2													
1.2 Equations	2													
1.3 Number Properties	3													
<b>2.0 Number Sense and Operation</b>	20													
2.1 Number Sense	10													
2.2 Number Operations	10													
<b>3.0 Geometry</b>	7													
3.1 Properties of Shapes	3													
3.2 Spatial Reasoning	2													
3.3 Coordinate Geometry	2													
<b>4.0 Measurement</b>	9													
4.1 Measurement	4													
4.2 Time and Temperature	2													
4.3 Money	3													
<b>5.0 Data Analysis</b>	7													
5.1 Data Analysis	4													
5.2 Probability	3													

NR = Not reported. Not enough items in the Standard or Objective to report.

# CLASS SUMMARY REPORT

## Oklahoma Core Curriculum Tests (OCCT) Grade 3 Mathematics - Spring 2015



Classroom report for:  
**DEMOCLASS1**

School: Demonstration School 1  
District: Demonstration District A  
Code: DEMONA-DE1

OCCT Grade 3 Mathematics

**CONFIDENTIAL**

Total Tested

### Purpose:

To communicate to teachers the class summary results of all students tested showing the extent to which the competencies in the Oklahoma Academic Standards, Oklahoma's core curriculum, have been mastered.

### OCCT Performance Level & OPI<sup>†</sup> Score Range

Advanced	798-990
Proficient	700-797
Limited Knowledge	633-699
Unsatisfactory	400-632

<sup>†</sup>OPI: The Oklahoma Performance Index is a scale score that places a student into one of four performance levels listed above.

**OP** - Other Placement (OP) are excluded from all results.

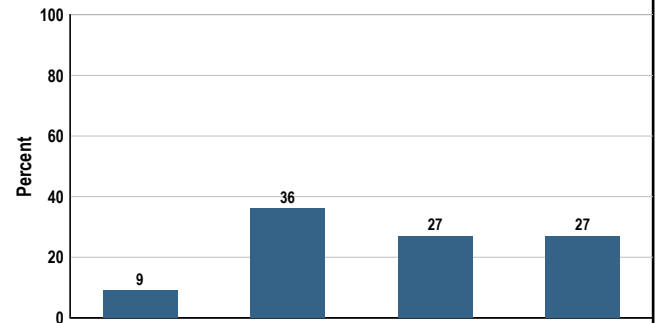
**BR** - Braille (BR) are excluded from only the standards and objectives

### PERFORMANCE LEVEL ACHIEVEMENT FOR YOUR CLASS

Mean OPI Score: 685  
( Proficient = 700 or above )

Number of Valid Scores: 11

Percent of Students at each Performance Level



Performance Level:	Advanced	Proficient	Limited Knowledge	Unsatisfactory
OPI Score Range:	798-990	700-797	633-699	400-632
Valid Scores:	1	4	3	3

### OCCT PERFORMANCE LEVELS, OPI SCORE RANGES, AND PERFORMANCE LEVEL DESCRIPTORS

#### ADVANCED: OPI score range: 798-990

Students demonstrate superior performance on challenging subject matter. In addition to demonstrating a broad and in-depth understanding and application of all skills at the Proficient level, students scoring at the Advanced level typically: use a wide range of strategies to solve problems; regularly use various types of reasoning effectively; consistently connect one area or idea of mathematics to another; and communicate mathematical ideas through a variety of representations.

#### PROFICIENT: OPI score range: 700-797

Students demonstrate mastery over appropriate grade-level subject matter, and students are ready for the next grade level. Students scoring at the Proficient level typically will:

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- Apply measurement concepts (including perimeter, length, weight, time, and temperature).
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- Apply geometric properties and relationships (including coordinate locations).
- Determine the correct amount of change when a purchase is made with five dollars or less.
- Determine the likelihood of events and be able to predict outcomes.

#### LIMITED KNOWLEDGE: OPI score range: 633-699

Students demonstrate partial mastery of the essential knowledge and skills appropriate to their grade level. Students scoring at the Limited Knowledge level are inconsistent in applying the general knowledge and mathematical process skills at the Proficient level necessary to solve problems effectively and reason mathematically.

#### UNSATISFACTORY: OPI score range: 400-632

Students have not performed at least at the Limited Knowledge level. Students scoring at the Unsatisfactory level should be given comprehensive mathematics instruction.

# CLASS SUMMARY REPORT

## Oklahoma Core Curriculum Tests (OCCT) Grade 3 Mathematics - Spring 2015



Classroom report for:  
**DEMOCLASS1**

School: Demonstration School 1  
District: Demonstration District A  
Code: DEMONA-DE1

OCCT Grade 3 Mathematics

**CONFIDENTIAL**

Operational - Total Tested

### STANDARDS AND OBJECTIVES MEAN PERCENT CORRECT

Standards and Objectives	Points Possible	Class Mean Percent Correct																		
			0	10	20	30	40	50	60	70	80	90	100							
<b>Mathematics</b>																				
<b>1.0 Algebraic Reasoning: Patterns and Relationships</b>	<b>7</b>	<b>70</b>																		
1.1 Algebra Patterns	2	NR																		
1.2 Equations	2	NR																		
1.3 Number Properties	3	NR																		
<b>2.0 Number Sense and Operation</b>	<b>20</b>	<b>62</b>																		
2.1 Number Sense	10	74																		
2.2 Number Operations	10	50																		
<b>3.0 Geometry</b>	<b>7</b>	<b>75</b>																		
3.1 Properties of Shapes	3	NR																		
3.2 Spatial Reasoning	2	NR																		
3.3 Coordinate Geometry	2	NR																		
<b>4.0 Measurement</b>	<b>9</b>	<b>53</b>																		
4.1 Measurement	4	59																		
4.2 Time and Temperature	2	NR																		
4.3 Money	3	NR																		
<b>5.0 Data Analysis</b>	<b>7</b>	<b>51</b>																		
5.1 Data Analysis	4	43																		
5.2 Probability	3	NR																		

NR = Not reported. Not enough items in the Standard or Objective to report.

# Student Roster by Student Name

## Oklahoma Core Curriculum Tests (OCCT) Grade 3 Mathematics - Spring 2015



Classroom report for:  
**DEMOCLASS1**

School: Demonstration School 1  
District: Demonstration District A  
Code: DEMONA-DE1

OCCT Grade 3 Mathematics

**CONFIDENTIAL**

Operational Test

**Purpose:**

To communicate to schools detailed information about students and their performance on the test, organized by an alphabetical listing of all students.

**OCCT Performance Level & OPI<sup>†</sup> Score Range**

<b>Advanced</b>	798-990
<b>Proficient</b>	700-797
<b>Limited Knowledge</b>	633-699
<b>Unsatisfactory</b>	400-632

<sup>†</sup> OPI - The Oklahoma Performance Index is a scale score that places a student into one of four performance levels listed above.

**PERCENT CORRECT BY STANDARDS AND OBJECTIVES**

Student Name	Cond. Code**	Performance Level	OPI Score	Raw Score	PERCENT CORRECT BY STANDARDS AND OBJECTIVES																		
					1.0 Algebraic Reasoning: Patterns and Relationships	1.1 Algebra Patterns	1.2 Equations	1.3 Number Properties	2.0 Number Sense and Operation	2.1 Number Sense	2.2 Number Operations	3.0 Geometry	3.1 Properties of Shapes	3.2 Spatial Reasoning	3.3 Coordinate Geometry	4.0 Measurement	4.1 Measurement	4.2 Time and Temperature	4.3 Money	5.0 Data Analysis			
<b>NO NAME PROVIDED</b>					7	2	2	3	20	10	10	7	3	2	2	9	4	2	3	7			
D03000005 07/27/2005 M		Proficient	779	43	86	NR	NR	NR	85	100	70	100	NR	NR	NR	67	100	NR	NR	100			
<b>LNAME14, FNAME14 R</b>		Unsatisfactory	607	20	57	NR	NR	NR	35	50	20	71	NR	NR	NR	33	50	NR	NR	14			
D03000014 02/11/2006 F																							
<b>LNAME15, FNAME15 M</b>		Proficient	712	35	71	NR	NR	NR	65	90	40	71	NR	NR	NR	56	50	NR	NR	100			
D03000015 02/01/2006 F																							
<b>LNAME16, FNAME16 N</b>		Limited Knowledge	698	33	86	NR	NR	NR	55	70	40	86	NR	NR	NR	78	100	NR	NR	43			
D03000016 06/23/2006 F																							
<b>LNAME19, FNAME19 B</b>		Limited Knowledge	652	26	71	NR	NR	NR	60	70	50	57	NR	NR	NR	33	50	NR	NR	29			
D03000019 12/30/2005 F																							
<b>LNAME21, FNAME21 R</b>		Advanced	804	45	71	NR	NR	NR	100	100	100	100	NR	NR	NR	67	50	NR	NR	100			
D03000021 09/24/2004 M																							
<b>LNAME23, FNAME23 J</b>		Unsatisfactory	557	15	14	NR	NR	NR	35	40	30	57	NR	NR	NR	22	25	NR	NR	14			
D03000023 01/22/2005 M																							
<b>LNAME25, FNAME25 A</b>		Proficient	742	39	100	NR	NR	NR	80	100	60	86	NR	NR	NR	67	100	NR	NR	57			
D03000025 05/19/2005 M																							
<b>LNAME27, FNAME27 S</b>		Limited Knowledge	645	25	71	NR	NR	NR	45	60	30	43	NR	NR	NR	78	75	NR	NR	14			
D03000027 09/20/2004 F																							
<b>LNAME32, FNAME32 D</b>		Unsatisfactory	615	21	71	NR	NR	NR	50	60	40	71	NR	NR	NR	11	0	NR	NR	0			
D03000032 09/01/2006 F																							
<b>LNAME33, FNAME33 Z</b>		Proficient	726	37	71	NR	NR	NR	70	70	70	86	NR	NR	NR	67	50	NR	NR	86			
D03000033 03/14/2005 M																							

\*\*Condition Codes:  
1 = NFAY in school  
2 = NFAY in district and school  
3 = NFAY in state, district, and school  
Blank = FAY in state, district, and school

OP = Other Placement

No Score Codes:  
NR = Not reported for this test  
ABS = Absent  
INV = Invalidated  
DNA = Did Not Attempt

ELL1 = ELL 1st Year in U.S. Exempt  
EE = Emergency Exempt

# Student Roster by Student Name

## Oklahoma Core Curriculum Tests (OCCT) Grade 3 Mathematics - Spring 2015



Classroom report for:  
**DEMOCLASS1**

School: Demonstration School 1  
District: Demonstration District A  
Code: DEMONA-DE1

OCCT Grade 3 Mathematics

**CONFIDENTIAL**

Operational Test

**Purpose:**

To communicate to schools detailed information about students and their performance on the test, organized by an alphabetical listing of all students.

**OCCT Performance Level & OPI<sup>†</sup> Score Range**

<b>Advanced</b>	798-990
<b>Proficient</b>	700-797
<b>Limited Knowledge</b>	633-699
<b>Unsatisfactory</b>	400-632

<sup>†</sup> OPI - The Oklahoma Performance Index is a scale score that places a student into one of four performance levels listed above.

**PERCENT CORRECT BY STANDARDS AND OBJECTIVES**

Student Name	Cond. Code**	Performance Level	OPI Score	Raw Score	5.1 Data Analysis	5.2 Probability													
State Student ID#	Date of Birth	Gender	Points Possible																
<b>NO NAME PROVIDED</b>			Proficient	779	43	100	NR												
D03000005	07/27/2005	M																	
<b>LNAME14, FNAME14 R</b>			Unsatisfactory	607	20	0	NR												
D03000014	02/11/2006	F																	
<b>LNAME15, FNAME15 M</b>			Proficient	712	35	100	NR												
D03000015	02/01/2006	F																	
<b>LNAME16, FNAME16 N</b>			Limited Knowledge	698	33	25	NR												
D03000016	06/23/2006	F																	
<b>LNAME19, FNAME19 B</b>			Limited Knowledge	652	26	0	NR												
D03000019	12/30/2005	F																	
<b>LNAME21, FNAME21 R</b>			Advanced	804	45	100	NR												
D03000021	09/24/2004	M																	
<b>LNAME23, FNAME23 J</b>			Unsatisfactory	557	15	0	NR												
D03000023	01/22/2005	M																	
<b>LNAME25, FNAME25 A</b>			Proficient	742	39	50	NR												
D03000025	05/19/2005	M																	
<b>LNAME27, FNAME27 S</b>			Limited Knowledge	645	25	0	NR												
D03000027	09/20/2004	F																	
<b>LNAME32, FNAME32 D</b>			Unsatisfactory	615	21	0	NR												
D03000032	09/01/2006	F																	
<b>LNAME33, FNAME33 Z</b>			Proficient	726	37	100	NR												
D03000033	03/14/2005	M																	

\*\*Condition Codes:  
1 = NFAY in school  
2 = NFAY in district and school  
3 = NFAY in state, district, and school  
Blank = FAY in state, district, and school

OP = Other Placement

No Score Codes:  
NR = Not reported for this test  
ABS = Absent  
INV = Invalidated  
DNA = Did Not Attempt

ELL1 = ELL 1st Year in U.S. Exempt  
EE = Emergency Exempt

# Student Roster by OPI Score

## Oklahoma Core Curriculum Tests (OCCT) Grade 3 Mathematics - Spring 2015



Classroom report for:  
DEMOCLASS1

School: Demonstration School 1  
District: Demonstration District A  
Code: DEMONA-DE1

### OCCT Grade 3 Mathematics

# CONFIDENTIAL

#### Purpose:

To communicate to teachers the individual student test results of all students by performance grouping, to assist in placement decisions.

#### OCCT Performance Level & OPI<sup>†</sup> Score Range

<b>Advanced</b>	798-990
<b>Proficient</b>	700-797
<b>Limited Knowledge</b>	633-699
<b>Unsatisfactory</b>	400-632

<sup>†</sup>OPI: The Oklahoma Performance Index is a scale score that places a student into one of four performance levels listed above.

<sup>‡</sup>OP - Other Placement (OP) are excluded from these results.

#### OPI Score Results<sup>‡</sup>

**Highest Score**  
804

**Mean Score**  
685

**Lowest Score**  
557

#### TOTAL NUMBER OF STUDENTS LISTED ON THIS REPORT: 11

#### Number of Students with OPI Scores

By Performance Level	By FAY and NFAY	By OP
1 - Advanced	11 - FAY	0 - Other Placement (OP)
4 - Proficient	0 - NFAY	
3 - Limited Knowledge		
3 - Unsatisfactory		

#### Number of Students with No Score

0 - Absent (ABS)	0 - ELL 1st Year in U.S. Exempt (ELL 1st)
0 - Invalidated (INV)	0 - Emergency Exempt (EE)
0 - Did Not Attempt (DNA)	

### OCCT PERFORMANCE LEVELS, OPI SCORE RANGES, AND PERFORMANCE LEVEL DESCRIPTORS

#### ADVANCED: OPI score range: 798-990

Students demonstrate superior performance on challenging subject matter. In addition to demonstrating a broad and in-depth understanding and application of all skills at the Proficient level, students scoring at the Advanced level typically: use a wide range of strategies to solve problems; regularly use various types of reasoning effectively; consistently connect one area or idea of mathematics to another; and communicate mathematical ideas through a variety of representations.

#### PROFICIENT: OPI score range: 700-797

Students demonstrate mastery over appropriate grade-level subject matter, and students are ready for the next grade level. Students scoring at the Proficient level typically will:

- Recognize and predict patterns.
- Compare and order whole numbers and fractions (halves, thirds, fourths, eighths, tenths, and twelfths).
- Demonstrate fluency with basic multiplication concepts (including fact families).
- Analyze the effects of combining and subdividing two- and three-dimensional figures.
- Apply measurement concepts (including perimeter, length, weight, time, and temperature).
- Analyze and interpret data in tables, graphs, and charts.
- Understand and model place value (to 4 digits).
- Estimate and find the sum or difference (with and without regrouping) of 3- and 4-digit numbers using a variety of strategies.
- Compare attributes of two- and three-dimensional shapes.
- Apply geometric properties and relationships (including coordinate locations).
- Determine the correct amount of change when a purchase is made with five dollars or less.
- Determine the likelihood of events and be able to predict outcomes.

#### LIMITED KNOWLEDGE: OPI score range: 633-699

Students demonstrate partial mastery of the essential knowledge and skills appropriate to their grade level. Students scoring at the Limited Knowledge level are inconsistent in applying the general knowledge and mathematical process skills at the Proficient level necessary to solve problems effectively and reason mathematically.

#### UNSATISFACTORY: OPI score range: 400-632

Students have not performed at least at the Limited Knowledge level. Students scoring at the Unsatisfactory level should be given comprehensive mathematics instruction.

# Student Roster by OPI Score

## Oklahoma Core Curriculum Tests (OCCT) Grade 3 Mathematics - Spring 2015



Classroom report for:  
DEMOCLASS1

School: Demonstration School 1  
District: Demonstration District A  
Code: DEMONA-DE1

### OCCT Grade 3 Mathematics

# CONFIDENTIAL

#### Students Earning: **ADVANCED (798-990)**

OPI Score	Student Name	State Student ID#	Birth Date	Gender	Condition Codes**
804	LNAME21, FNAME21 R	D030000021	09/24/2004	M	

#### Students Earning: **PROFICIENT (700-797)**

OPI Score	Student Name	State Student ID#	Birth Date	Gender	Condition Codes**
779	NO NAME PROVIDED	D030000005	07/27/2005	M	
742	LNAME25, FNAME25 A	D030000025	05/19/2005	M	
726	LNAME33, FNAME33 Z	D030000033	03/14/2005	M	
712	LNAME15, FNAME15 M	D030000015	02/01/2006	F	

#### Students Earning: **LIMITED KNOWLEDGE (633-699)**

OPI Score	Student Name	State Student ID#	Birth Date	Gender	Condition Codes**
698	LNAME16, FNAME16 N	D030000016	06/23/2006	F	
652	LNAME19, FNAME19 B	D030000019	12/30/2005	F	
645	LNAME27, FNAME27 S	D030000027	09/20/2004	F	

#### Students Earning: **UNSATISFACTORY (400-632)**

OPI Score	Student Name	State Student ID#	Birth Date	Gender	Condition Codes**
615	LNAME32, FNAME32 D	D030000032	09/01/2006	F	
607	LNAME14, FNAME14 R	D030000014	02/11/2006	F	
557	LNAME23, FNAME23 J	D030000023	01/22/2005	M	

**\*\*Condition Codes:**

1 = NFAY in school  
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**No Score Codes:**

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DNA = Did Not Attempt

ELL1 = ELL 1st Year in U.S. Exempt  
EE = Emergency Exempt



## Roster

OCCT for Grades 3-8, Cyber District, 2015, Grade 03, Final

Fields Scores Search Filter Other

Save Report Download Student View Reset Report

Last Name	First Name	Subjects					
		Reading			Mathematics		
		Raw Score	OPI	Performance Level	Raw Score	OPI	Performance Level
Doe001	John001	23	646	Unsatisfactory	24	638	Limited Knowledge
Doe001	John001	45	839	Proficient	48	866	Advanced
Doe002	John002	32	712	Proficient	31	685	Limited Knowledge
Doe002	John002	14	550	Unsatisfactory			
Doe002	John002				20	607	Unsatisfactory
Doe002	John002	35	734	Proficient	35	712	Proficient

Page 1 / 398 Jump to page  Go Displaying 1-20 of 7956

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### Group Summary: Performance Levels

OCCT for Grades 3-8, 2015, Grade 03, Final

Disaggregate: Gender

Scores Filter Disaggregate Other

Save Report Download Transpose Reset Report

Group	Administration	Reading									Mathematics								
		Total N	Valid N	Mean OPI	% in Each Performance Level				% At or Above Proficient	% Below Proficient	Total N	Valid N	Mean OPI	% in Each Performance Level				% At or Above Proficient	% Below Proficient
					Unsatisfactory	Limited Knowledge	Proficient	Advanced						Unsatisfactory	Limited Knowledge	Proficient	Advanced		
Cyber District	2015	7669	7591	690	29	22	48	1	49	51	7659	7633	667	36	28	28	9	37	63
Female	2015	3735	3688	704	24	21	54	1	55	45	3725	3714	666	36	27	28	8	36	64
Male	2015	3934	3903	676	34	23	42	1	43	57	3930	3918	668	35	28	28	9	37	63
Not Indicated	2015										4	1	400	100	0	0	0	0	100



### Group Summary: Standards And Objectives

OCCT for Grades 3-8, 2015, Grade 03, Final

Disaggregate: Ethnicity, Gender

Group	Administration	Form	Mathematics										
			Total N	Valid N	1.0	2.0		3.0	4.0		5.0		
					Mean Percent Correct	Mean Percent Correct	2.1	2.2	Mean Percent Correct	Mean Percent Correct	4.1	Mean Percent Correct	5.1
Cyber District	2015	Equivalent	24	24	68	62	58	66	58	42	41	54	54
Black/African American	2015	Equivalent	1	1	43	25	20	30	29	11	25	29	25
Hispanic/Latino	2015	Equivalent	19	19	68	64	61	67	57	44	39	50	49
White	2015	Equivalent	2	2	79	55	45	65	71	28	50	65	75
Two or more Races	2015	Equivalent	2	2	71	73	70	75	72	45	50	93	100
Female	2015	Equivalent	8	8	73	63	59	68	64	43	41	57	63
Male	2015	Equivalent	16	16	66	62	58	65	55	41	41	53	50
Cyber District	2015	Operational	7,635	7,609	70	56	62	49	61	53	58	53	49
American Indian/Alaskan Native	2015	Operational	304	303	70	58	64	51	62	56	63	56	51
Black/African American	2015	Operational	1,907	1,901	64	48	53	43	55	45	48	42	36
Asian	2015	Operational	116	116	80	67	73	61	71	66	67	71	70
Hispanic/Latino	2015	Operational	3,338	3,334	71	56	62	49	60	54	58	53	49
White	2015	Operational	1,474	1,466	75	64	71	57	68	63	69	65	62
Native Hawaiian/Other Pacific Islander	2015	Operational	22	22	57	47	50	45	53	41	42	41	31

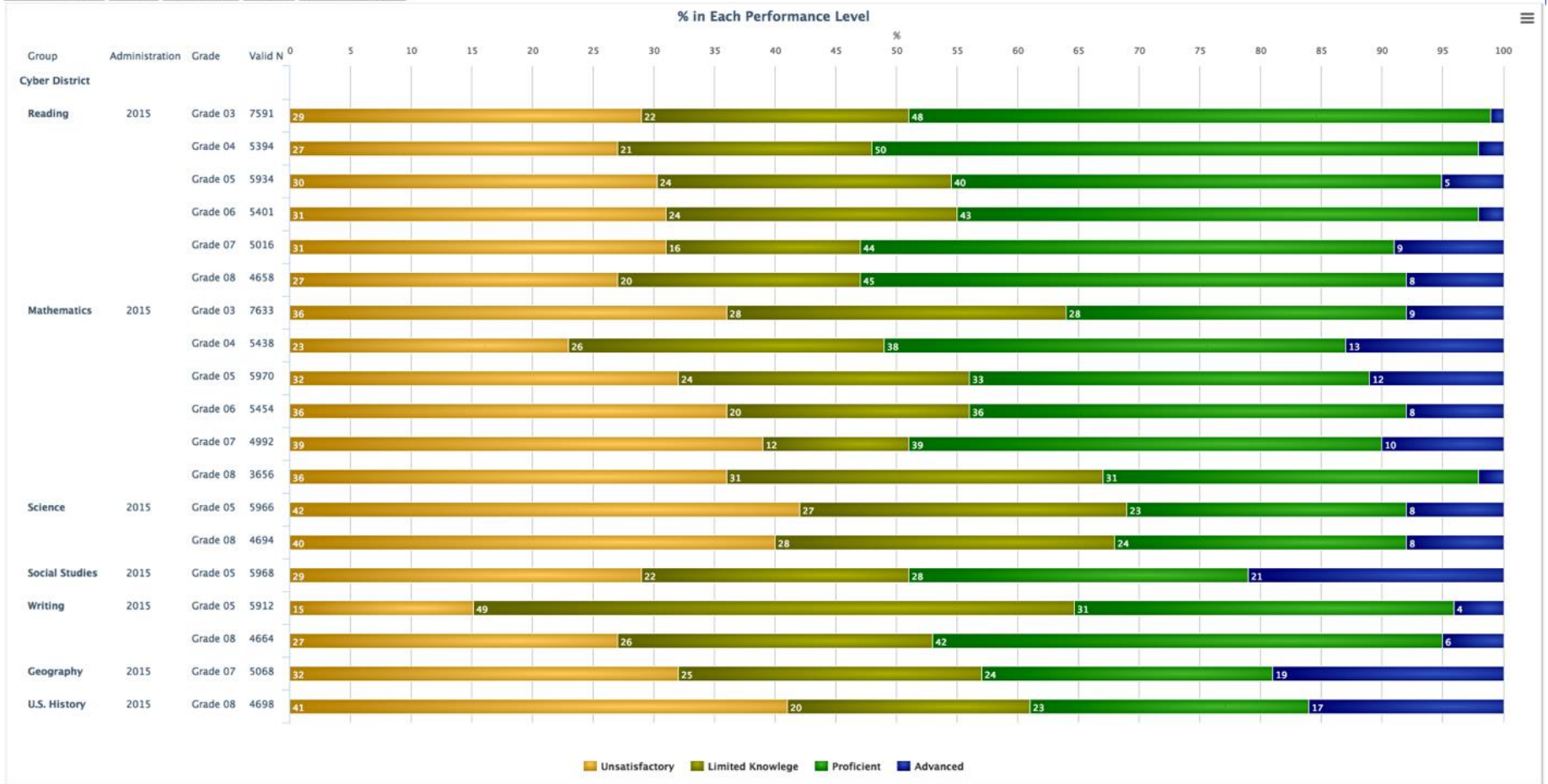
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**Graphical Summary: Performance Levels**

OCCT for Grades 3-8, Final

Report Type Stats Subjects Filter Disaggregate

Save Report Download Reset Report



# APPENDIX V—ANALYSIS AND REPORTING DECISION RULES



# Analysis and Reporting Decision Rules

## Oklahoma 14-15 Winter EOI: Retest, Winter, Trimester

### Oklahoma 14-15 Spring OCCT 3-8

This document details rules for analysis and reporting for the Oklahoma Program. This document is considered a draft until the Oklahoma State Department of Education (SDE) signs off. If there are rules that need to be added or modified after said sign-off, SDE sign-off will be obtained for each such rule.

#### Table of Contents:

YEAR TO YEAR CHANGE HIGHLIGHTS: .....	II
DECISION RULES .....	3
I. CONTRACT OVERVIEW .....	3
A. Test Administration(s) .....	3
B. General Reporting Cycles .....	3
II. INTERNAL DATA SOURCES .....	4
A. Item Banking .....	4
B. School Information (iCore) .....	4
C. Data Processing (DP) .....	4
III. EXTERNAL DATA SOURCES .....	5
A. Pre-code files .....	5
B. State Status Codes File .....	5
C. Bio Data Clean up File .....	5
D. NFAY Update File .....	5
E. OMAAP Update File .....	5
IV. DATA RECONCILIATION AUDITS .....	5
A. No/Incomplete Response to Demographic Information .....	5
B. IEP Braille and IEP Large Print .....	6
C. ELL and First & Second Year Proficient (ELL Proficient) .....	6
D. Non-Full Academic Year .....	6
E. Not Tested Code Resolution .....	7
V. STUDENT PARTICIPATION AND REPORTING STATUS .....	7
C. Participation Status Summary .....	9
D. Post-Discrepancy Participation Status Assignment .....	10
VI. CALCULATIONS .....	10
A. Student Level Calculations .....	10
B. Aggregate Calculations .....	12

## Year to Year Change Highlights:

<b>Date</b>	<b>Description</b>	<b>Page(s)</b>
12/16/14	Updated text from SDE, clarified IEP/504 and ELL with accommodation rules, updated MP internal scoring codes.	11,12
5/21/15	Added attempt status update for 5&8 Writing	7,9



## Decision Rules

### I. Contract Overview

#### A. Test Administration(s)

*This section lists all administrations covered by these decision rules.*

Admin ID	Description	Test Grade(s)	Subject
1	EOI Optional Winter Retest	HS	EOI: English II, English III, Algebra I, Algebra II, Geometry, Biology I, U.S. History
2	EOI Winter Block	HS	EOI: English II, English III, Algebra I, Algebra II, Geometry, Biology I, U.S. History OMAAP: English II, Algebra I, Biology I, U.S. History
3	EOI Winter Trimester	HS	EOI: English II, English III, Algebra I, Algebra II, Geometry, Biology I, U.S. History OMAAP: English II, Algebra I, Biology I, U.S. History
4	OCCT	03-08	Reading, Mathematics, Writing, Science, Social Studies

#### B. General Reporting Cycles

Release	Description	Applies To:
<b>EOI Winter</b>		
-	Instant Reporting	Online tests only
1	48 Hour Reporting	Online tests only, English II/III MC only
2	Preliminary Reporting	All
3	Final Reporting	All
<b>OCCT</b>		
-	Instant Reporting	Online tests only
1	Expedited Reporting	Grade 03 Reading;
2	48 Hour Reporting	Writing 6-8 Online
3	Preliminary Reporting	All
4	Final Reporting	All

#### C. Post-Test Clean Up Expectations

There will be one specified window of opportunity to update student biographical data. This will occur after preliminary reporting and prior to final reporting. **Process and details TBD.**

## II. Internal Data Sources

### A. Item Banking

All items and associated metadata are stored in Measured Progress's Content Bank.

### B. School Information (iCore)

School types are calculated by MP based on SchoolTypeID and SchoolSubTypeID:

SchType	Identification	Description
PUB	1,1	Public Schools
CHA	1,11 1,12	Charter Schools, Virtual Charter Schools
PRI	3,2	Non Public Schools, including BIA schools

#### i. **Additional iCore Specific Rules/Information**

Non-Public Data are not provided to the SDE, with the exception of The School for the Deaf and The School for the Blind.

### C. Data Processing (DP)

#### i. **Test Booklet Reconciliation (i.e. Online, Paper, Multiple Paper Tests)**

All test records and pre-id records are reported with the exception of merged duplicate test records.

#### ii. **Duplicate Resolution**

Do not Report-Duplicate is assigned by DP

#### iii. **OMAAP Invalidations**

If IEP = 0 or 2<sup>nd</sup> Time Tester = 0, set to Invalidated.

#### iv. **Class Level Assignments**

Class name from the pre-code file, online portal, or class header sheet will be used to identify how the classes are organized for reporting in the eMetric system. For final reporting, the class name will come from the bio data updates. If no class name is provided, students will be reported under the class name of 'No Name'.

#### v. **Final reporting demographics and test codes**

All final demographics and test status codes come from the bio data update file, the SDE Approved Status Codes file, and SDE NFAY updates.

### III. External Data Sources

#### A. Pre-code files

- i. Districts will submit a file to the secure ftp site to identify students expected to test for the Winter EOI.
- ii. The files will be used for enrollment counts for test material orders, generating labels for paper tests, pre-id rosters, setting up online tests, and preliminary demographic information.

#### B. State Status Codes File

- i. A file is sent to Measure Progress prior to preliminary reporting, as well as prior to final reporting, listing students with a State approved code. This is used by data processing to update the student test participation status.
  - In addition to a student status code, students may be marked 'Other Placement' special reporting requirements apply.
    - a. This applies if a student has been placed by state or court order in a facility or district. These students will receive an Individual Parent/Student Report of their scores and will appear on class/school rosters. However, their scores will not be summarized and reported with the class, school, or district. Instead they will be placed within a "virtual district" at the state level and the state will be accountable.

#### C. Bio Data Clean up File

- i. An updated Bio data cleanup file is supplied after preliminary reporting to be used for final reporting. Process TBD

#### D. NFAY Update File

- i. MP will provide a results file to SDE after bio data review. SDE will update the NFAY status and return then file, to be used for final reporting.

#### E. OMAAP Update File

- i. At the same time the NFAY file is provided, SDE will also provide a file to update OMAAP students to either invalidate or to 'un' invalidate them if they were invalidated due to IEP and 2<sup>nd</sup> time tester status.

### IV. Data Reconciliation Audits

*The following cleanup will be performed on student level data prior to analysis once demographic data and reconciled test information are compiled to ensure consistency. Calculations are performed in the order listed below, and audited values are used in each subsequent check and for all analysis, reporting, and deliverables as applicable:*

#### A. No/Incomplete Response to Demographic Information

- i. The following fields are yes/no fields, and will have a blank translated to 'no' (0):
  - Hispanic, American Indian, Asian, African American, Pacific Islander, Caucasian
  - Alt. Ed. Academy
  - Migrant
  - Title X, Part C

- Free/Reduced Lunch
- Distance learning
- 2<sup>nd</sup> Time Testing Opportunity
- IEP
- IEP or 504 Accommodation – Setting
- IEP or 504 Accommodation - Presentation
- IEP or 504 Accommodation – Timing/Scheduling
- IEP or 504 Accommodation - Response
- IEP Large Print
- IEP Braille
- ELL
- ELL Accommodation – Translator
- ELL Accommodation – Transcribe
- ELL Accommodation - Clarification
- ELL Accommodation - Grouping
- ELL Accommodation – W/W Dictionary
- eMetric Accommodation – Read Aloud
- eMetric Accommodation – Zoom
- eMetric Accommodation – Color Contrast
- Other Placement

**B. *IEP Braille and IEP Large Print***

- i.* If TestMode is online, then IEPBraille and IEP LargePrint are set to 0.

**C. *ELL and First & Second Year Proficient (ELLProficient)***

- i.* If both ELL 1<sup>st</sup> Year Proficient and ELL 2<sup>nd</sup> Year Proficient are marked the student is considered 2<sup>nd</sup> Year Proficient (ELLProficient = 2). If neither are marked then ELLProficient = 0. Otherwise it is 1.

**D. *Non-Full Academic Year***

- i.* If Non-Full Academic Year (NFAY) is blank, then set to 0.
- ii.* Hierarchy of assignment if one or more NFAY bubbles are marked:
  - Non-Full Academic Year in school, district and state (NFAY = 3)
  - Non-Full Academic Year in school and district (NFAY = 2)
  - Non-Full Academic Year in school (NFAY = 1)

## E. **Not Tested Code Resolution**

- i. If multiple not tested codes are indicated, a single code is assigned based on the following hierarchy:
  - No Longer Enrolled
  - Absent
  - State Alternate Testing (OAAP)
  - Previously Passed
  - Other

## V. **Student Participation and Reporting Status**

### A. **Basic Definitions**

*The following criteria are defined for use during the participation status assignment hierarchy. Students may meet the criteria for multiple definitions, but during the hierarchy are assigned a single final participation status.*

#### i. **Test Attemptedness** (by subject)

- **5 & 8 Writing**
  - a. The Writing prompt is considered to be attempted if a non-blank score is received. This includes non scorable reasons of Illegible\Incomprehensible, Language other than English, Refusal to Answer, and Off-topic.
  - b. If the prompt receives a non scorable reason of 'Blank', the prompt is not considered to be attempted. This will be reported as a score of 0 unless a state approved status or not tested code is present.
- For all other grades and subjects, a student must attempt a minimum of 5 multiple-choice items in the content area to receive a score. The 5 items must be operational items and not indicated as flawed, placeholder, or field test items (or non-braille-able items in a Braille test) in the item database. These 5 items may be anywhere in the content area, regardless of session.
  - a. The English II and English III tests are considered attempted based on the criteria above, regardless of a writing prompt score. However, the presence of only a writing prompt score is not considered a valid attempt.
  - b. If no valid attempt, the student receives the Did Not Attempt status (assuming other student statuses are not applicable)

#### ii. **Not Tested Indicators** (by subject)

- Not tested codes  
These codes are collected from the answer document, online testing system, or through the bio data cleanup window. If multiple codes are indicated, a hierarchy is applied.
  - a. No Longer Enrolled
  - b. Absent
  - c. State Alternate Testing (OAAP)
    - Not applicable for OMAAP
  - d. Previously Passed

**e. Other**

- State approved status codes  
These codes are supplied by the state.
  - a.** Mastery Demonstrated Exempt
    - Only applies to Algebra II, English III, Geometry, and U. S. History
    - Not valid for OMAAP or OCCT 3-8.
  - b.** ELL 1<sup>st</sup> Year in U.S. Exempt
    - Applies to:
      - English II and English III
      - 3-8 Reading
      - 5&8 Writing
  - c.** Emergency Exempt
  - d.** Do not Report
  - e.** Do not Report – Duplicate (set by DP)
  - f.** Invalidated
    - For OMAAP, if IEP = 0 or 2<sup>nd</sup> Time Tester = 0, MP set to Invalidated.

**B. Participation Status Assignment Hierarchy (by subject)**

- i.* Regardless of attempt status, if the student has a State Code provided they are assigned a participation status per the following hierarchy and existing work is not reported:
  - Mastery Demonstrated Exempt
    - a.** Only applies to Algebra II, English III, Geometry, and U. S. History
    - b.** Not valid for OMAAP
  - ELL 1<sup>st</sup> Year in U.S. Exempt
    - a.** Only applies to English II and English III
  - Emergency Exempt
  - Do not Report
  - Do not Report – Duplicate  
*(note these are set by data processing, not by the SDE)*
  - Invalidated
- ii.* Otherwise, if the student attempted the test they are reported as a participant and all Not Tested Codes are suppressed.
- iii.* Otherwise, if the student did not attempt the test they are assigned a participation status per the following hierarchy of Not Tested Codes:
  - No Longer Enrolled
  - Absent
  - State Alternate Testing (OAAP)
    - a.** Not applicable for OMAAP.
  - Previously Passed
  - Other

- iv. Otherwise, if it is 5 & 8 Writing, the student is reported as a participant. Did not Attempt is not applicable for 5 & 8 Writing.
- v. Otherwise, the student is assigned a status of Did Not Attempt.

### C. Participation Status Summary

Subjects	Administrations	Description	MP Part Status	Printed Report Text	
				Results Label	Student Report
All	All	Valid Participant	Z	Earned Perf. Level	Earned Perf. Level
All	All	Did not Attempt ( <i>not applicable for 5&amp;8 Writing</i> )	A	DNA	Your student did not attempt the test.
Algebra II, English III, Geometry, and U. S. History	EOI	Mastery Demonstrated Exempt	B	MDE	Your student did not take the test based upon the status of Mastery Demonstrated Exempt.
English II, English III		ELL 1 <sup>st</sup> Year in U.S. Exempt	C	ELL1	Your student did not take the test based upon your student's <test name+content area name> language learner status and being first year in the U.S.
All	All	Emergency Exempt	D	EE	Your student did not take the test based upon the status of Emergency Exempt.
All	All	Do not Report	E	N/A	N/A
All	All	Invalidated	F	INV	Your student's test was Invalidated.
All	All	No longer Enrolled	G	N/A	N/A
All	All	Absent	H	ABS	Your student was absent and did not take the test.
All	EOI	State Alternate Testing (OAAP)	I	N/A	N/A
All	All	Previously Passed	J	N/A	N/A
All	All	Other	K	N/A	N/A
All	All	Do not Report- Duplicate	L	N/A	N/A

**D. Post-Discrepancy Participation Status Assignment**

After the bio data cleanup window, an updated bio data file and State status code file are sent to Measured Progress. The resolution of these codes and student Participation Status assignment will be completed again following the rules defined in previous sections.

**VI. Calculations**

**A. Student Level Calculations**

*i. Calculations by Participation Status Summary*

Description	MP Part Status	Raw Scores (Reports)	Item Scores (Reports)	OPI Score (Reports)	Performance Level (Reports)	Data File Raw Scores	Data File Item Scores	Data File OPI Score	Data File Performance Level
Valid Participant	Z	✓	✓	✓	✓	✓	✓	✓	✓
Did not Attempt	A				DNA				
Mastery Demonstrated Exempt	B				MDE				
ELL 1 <sup>st</sup> Year in U.S. Exempt	C				ELL1				
Emergency Exempt	D				EE				
Do not Report	E*								
Invalidated	F				INV				
No longer Enrolled	G*								
Absent	H				ABS				
State Alternate Testing (OAAP)	I*								
Previously Passed	J*								
Other	K*								
Do not Report- Duplicate	L*								

*\* Student records only appear in State results file. They do not appear in online or paper reports.*



**ii. Resolved Ethnicity for reporting (Ethnic)**

- If 'Hispanic' is indicated, then the student is marked as Hispanic.
- Otherwise if only one race is indicated, the student is reported as that race.
- Otherwise the student is reported as 'Two or More Races'.
- The values for Ethnic are as follows:
  - 1 = Black/African American
  - 2 = American Indian/Alaska Native
  - 3 = Hispanic/Latino
  - 4 = Asian
  - 5 = Pacific Islander
  - 6 = White/Caucasian
  - 7 = Two or More Races

**iii. Resolved IEP and 504 for reporting (rptIEP, rpt504)**

*Note: OMAAP does not have 504.*

- If IEP and 504 are both 0, and no IEP/504 accommodations are present, then report as not IEP and not 504.
  - a.** rpt504 = 0, rptIEP = 0
- If IEP and 504 are both 0, and any IEP/504 accommodations are present, then report as IEP with accommodations, and not 504.
  - a.** rptIEP = 2, rpt504 = 0
- If IEP and 504 are both 1 then report as IEP (with or without accommodations) and not 504.
  - a.** rpt504 = 0
  - b.** If any IEP/504 or online accommodations are present, then rptIEP = 1; otherwise rptIEP = 2.
- If IEP is 0 and 504 is 1, then report as 504 with (or without) Accommodations.
  - a.** If any IEP/504 or online accommodations are present, then rpt504 = 1; otherwise rpt504 = 2.

**iv. Resolved ELL for reporting (rptELL)**

- If any ELL Accommodations are marked, the student is ELL with accommodations.
  - a.** rptELL = 1
- Otherwise if ELL = '1' and any online accommodations are marked the student is ELL with accommodations.
  - a.** rptELL = 1

- Otherwise if ELL = '1' and no ELL or online accommodations are marked the student is ELL without accommodations.
  - a. rptELL = 2
- Otherwise set rptELL = '0'.

v. **Regular Education(RegularEd)**

- If IEP or ELL = 1, then RegularEd = 0. Otherwise RegularEd = 1.

vi. **Writing Condition Code**

The following table shows the MP raw value and the reported value of Writing Condition code for Writing Prompts that do not earn a score.

MP Raw Data Value	Description	Reported Value	Report Score Condition Text
I	Illegible/Incomprehensible	I	Illegible/Incomprehensible
F	Language Other than English	L	Language Other than English
B, R	Blank response/ refusal	N	No Response or Refusal to Answer
O	Off Topic	O	Off-topic

vii. **Class Name**

- If ClassName is blank, set to 'No Name'.

viii. **Raw Score calculations**

- Only common, non-flawed items are included in raw score calculations.

**B. Aggregate Calculations**

i. **Number Enrolled**

The following students are included in Enrollment counts:

- a. Valid Participants, Did Not Attempt, Mastery Demonstrated Exempt, ELL 1<sup>st</sup> Year Exempt, Emergency Exempt, Invalidated, Absent, State Alternate Assessment (PartStatus = Z,A,B,C,D,F,H,I)

ii. **Number Tested**

The following students are included in participation tested counts:

- a. Valid Participants (PartStatus = Z)

iii. **Performance Summary**

The following rules describe whether students are included in performance level and OPI score aggregations at the Class, School, District, and State level.

The following students are included in all aggregations unless otherwise noted: (IncludedClass/School/District/State = 1)

- a. Valid Participants (PartStatus = Z)
- b. 1<sup>st</sup> Time Testers (TwoTT = 0)

- Additional Rules
  - a.** Students at Non Public schools (Schtype = PRI) are not included in State aggregations. (IncludedState = 0)
  - b.** Other Placement students are not included in Class, School, or District aggregations. (IncludedClass/School/District= 0)
  - c.** Operational, Equivalent, and Braille tests are included and aggregated together.

**iv. Standards and Objectives Summary**

*The following rules describe whether students are included in standards and objectives raw score aggregations at the Class, School, District, and State level.*

The following students are included in all aggregations unless otherwise noted:  
(IncludedClass/School/District/State = 1)

- a.** Valid Participants (PartStatus = Z)
- b.** 1<sup>st</sup> Time Testers (TwoTT = 0)

- Additional Rules
  - a.** Students at Non Public schools (Schtype = PRI) are not included in State aggregations. (IncludedState = 0)
  - b.** Other Placement students are not included in Class, School, or District aggregations. (IncludedClass/School/District= 0)
  - c.** Operational and Equivalent tests are aggregated separately.
  - d.** Braille tests are not included.

# APPENDIX W—GLOSSARY OF ASSESSMENT TERMS



This glossary of commonly used assessment terms can be used to help interpret and communicate test results. Note that because assessment terms evolve in terms of meaning and application, the definitions for some words may evolve beyond the sense indicated here.

**accommodation** A general term referring to changes in the setting in which a test is administered, the timing of a test, the scheduling of a test, the ways in which the test is presented, and the ways in which the student responds to the test. The term is used to refer to changes that do not alter in any significant way what the test measures or the comparability of scores.

**achievement test** An assessment that measures a student's acquired knowledge and skills in a content area (for example, OCCT Grade 5 Mathematics) in which the student has received instruction.

**alternate assessment** A substitute way of gathering information on the performance and progress of students who cannot participate, even with accommodations, in the regular state or district assessment programs. Alternate assessments provide a mechanism for all students to be included in the accountability system.

**analytic scoring** A scoring procedure in which a student's writing is evaluated for selected traits or dimensions, with each trait receiving a separate score. The resulting values are combined for an overall score.

**bias** A systematic error in a test score. Bias occurs when factors irrelevant to the subject matter related to the assessment result in one or more specific groups of students being advantaged or disadvantaged relative to other groups.

**classical test theory** A psychometric theory based on the perspective that an individual's observed score on a test is composed of the true score of the examinee and an independent component of measurement error.

**construct** The underlying concept or the characteristic that a test is designed to measure.

**construct irrelevance** The extent to which test scores are affected by factors that are not relevant to the construct that the test is designed to measure.

**construct validity (content validity)** Construct validity indicates the extent to which the content of the test samples the subject matter or situation about which conclusions are to be drawn; also described as "evidence based on test content."

**constructed-response item** An assessment unit with directions, a question, or an idea that elicits a written response from a student.

**content standard** A statement describing the knowledge and skills in a content area that is expected to be taught in classrooms and should be met at a specified point in time (e.g., at the end of the course).

**conversion tables** Tables used to convert a student's test scores from raw-score total to scaled score.

**criterion** A standard or judgment used as a basis for quantitative and qualitative comparison; also a variable to which a test is compared as a measure of the test's validity.

**criterion-referenced test** An assessment that allows its users to make score interpretations of a student's performance in relation to specified performance standards or criteria, rather than in comparison to the performances of other test takers. See also **performance standard/level**.

**differential item functioning (DIF)** A situation that occurs in testing when different groups of examinees (e.g., ethnic or gender groups) with the same true achievement levels have different levels of success on a particular item. Test developers reduce DIF by analyzing item data separately for each group. Items identified with DIF are carefully reviewed by content experts and culture and sensitivity committees. Items that appear to be unfair to one or more groups are discarded.

**discrimination parameter** Under **Item Response Theory (IRT)**, it indicates the degree an item distinguishes between examinees of differing abilities on the trait being measured. Low discrimination values indicate an item does not discriminate students of low and high abilities.

**distractor** An incorrect answer choice in a selected-response or multiple-choice test item.

**frequency distribution** An ordered tabulation of individual scores (or groups of scores) showing the number of students obtaining each score or the number of students that were within each score grouping.

**holistic scoring** A scoring procedure yielding a single score based on overall student performance rather than on an accumulation of points. Holistic scoring uses rubrics to evaluate student performance. Note: This procedure is used to score the OMAAP English II Writing response.

**item** A statement, exercise, task, question, or problem on a test.

**Item Response Theory (IRT)** A set of mathematical models that describes the relationship between performance on test items and the student's level of performance on the same scale as the ability or trait being measured. For OCCT 3–8 and EOI, the three-parameter model is used for the calibration and scaling of multiple-choice items; the two-parameter partial credit model (2PPC) is used for Writing prompts in EOI English II and English III. For the EOI OMAAP assessments, the one-parameter (Rasch) model is used for calibration and scaling of multiple-choice items; the one-parameter partial credit model (1PPC) is used for the Writing prompt in English II. The various item parameters associated with each model (discrimination, difficulty, and guessing) are used to describe the statistical characteristics of each item. The Rasch and 1PPC only produce item difficulty estimates.

**location (difficulty) parameter** In Item Response Theory, this parameter is the point on the ability scale at which an item discriminates, or measures, best.

**mean** The quotient obtained by dividing the sum of a set of scores by the number of scores; also called the "average." Mathematicians call it the "arithmetic mean."

**median** The middle score in a set of ranked scores. Equal numbers of ranked scores lie above and below the median. It corresponds to the 50th percentile and the 5th decile.

**mode** The score or value that occurs most frequently in a distribution.

**multiple-choice item** A question, problem, or statement called a "stem" that appears on a test followed by two or more answer choices, called alternatives or response choices. The incorrect choices, called distractors, usually reflect common errors. The student's task is to choose the best answer to the question posed in the stem.

**normal distribution curve** A bell-shaped curve representing a theoretical distribution of measurements that is often approximated by a wide variety of actual data. It is often used as a basis for scaling and statistical hypothesis testing and estimation in psychology and education because it approximates the frequency distributions of sets of measurements of human characteristics.

**norm-referenced test** A standardized assessment in which all students perform under the same conditions (e.g., carefully defined directions, time limits, materials, and scoring procedures). This type of test allows for the interpretation of the test score in relation to a specified reference group, usually others of the same grade and level.

**Oklahoma Academic Standards** The Oklahoma Academic Standards are Oklahoma’s core curriculum. Each subject/grade has a different set of standards and objectives on which students are tested.

**Oklahoma Core Curriculum Tests (OCCT)** The OCCT is the general testing program administered in Oklahoma public schools to students in Grades 3–8 and End-of-Instruction.

**Oklahoma Modified Alternate Assessment Program (OMAAP)** The OMAAP EOI is administered for retake purposes only in order to meet a graduation requirement or to apply a Modified Proficiency Score. Students must be 2nd Time Testers with a previous OMAAP score in the same subject and be on an Individualized Education Program (IEP). The current OMAAP assessments are High School EOI for Algebra I, English II, Biology I, and U.S. History.

**Oklahoma Performance Index (OPI)** The Oklahoma Performance Index (OPI) is a scaled score resulting from the mathematical transformation of the true score, which is associated with each of the raw scores. The OPI score is used to place students in one of four performance levels.

**Oklahoma School Testing Program (OSTP)** The OSTP is a testing program that includes the OCCT general assessment in Grades 3–8 and EOI, the OMAAP EOI assessments, and the OAAP portfolio assessment.

**open-ended item** See constructed-response item.

**performance level** A level of performance on a test, established by education experts, as a goal of student attainment. It may also refer to a description of the knowledge, skills, and abilities typically held by students within a performance level.

**performance-level score range** The performance-level score range is the range of scale scores that corresponds to one of the four performance levels: Advanced, Proficient/Satisfactory, Limited Knowledge, and Unsatisfactory.

**Portfolio assessments** The Portfolio assessment is a yearlong collection of information and pieces of evidence, which represent a student’s mastery of the Oklahoma Academic Standards.

**raw score** The number of correct answers on a test.

**reliability** The degree to which test scores obtained by a group of individuals are consistent over repeated applications. The reliability coefficient indicates the degree to which scores are free of measurement error. The conditions that the coefficient estimates may involve variations in test forms (alternate form reliability), repeated administration of the same form to the same groups after a time interval (test-retest reliability), or the statistical interrelationship of responses on separate parts of the test (internal consistency). Internal consistency fits into OCCT and EOI OMAAP test condition.



**rubric** A scoring tool, or set of criteria, used to evaluate a student’s test performance. A scoring rubric is used to evaluate a student’s response to the OCCT Grades 5 and 8 Writing, the OCCT ACE English II, and the ACE English III Writing prompt, as well as the EOI OMAAP English II Writing prompt.

**scale scores** Scores on a single scale with intervals. The scale can be applied to all groups taking a given test, regardless of group characteristics or time of year, making it possible to compare scores from different groups of students. Scale scores are appropriate for various statistical purposes. For example, they can be added, subtracted, and averaged across test levels. Such computations permit educators to make direct comparisons among examinees or compare individual scores to groups in a way that is statistically valid. This cannot be done with percentiles or grade equivalents.

**standard** A target toward which instruction is specifically directed. In OSTP tests, standards are used to cluster key skills and/or concepts in an instructional domain. For example, skills such as Literal Understanding and Inferences and Interpretation form part of the Comprehension standard in the OCCT Grade 8 Reading test and the ACE English II test.

**standard deviation** A statistic used to express the extent of the divergence of a set of scores from the average of all the scores in the group. In a normal distribution, approximately two thirds (68.3 percent) of the scores lie within the limits of one standard deviation above and one standard deviation below the mean. The remaining scores are equally distributed more than one standard deviation above and below the mean.

**standard error of measurement (SEM)** Measurement error is associated with all test scores. The standard error of measurement (SEM) is an estimate of the amount of error to be expected in a score from a particular test. This statistic provides a range within which a student’s true score is likely to fall. The smaller the standard error of measurement, the smaller the range in which the student’s true score would likely fall and the more accurate the test score.

**stem** The part of an item that asks a question, provides directions, or presents a statement to be completed.

**stimulus** A passage or graphic display about which questions are asked.

**test** A device or procedure designed to elicit responses that permit an inference about what a student knows or can do.

**test item** See **item**.

**true score** In classical test theory, the hypothetical average score that would result if the test could be administered repeatedly without practice or fatigue effects. In Item Response Theory, the “true score” is the error-free value of the test taker’s performance.

**unscorable** Writing responses that do not meet certain criteria cannot be scored. A zero composite score is given to responses that fall into the following categories:

N – No Response/Refusal to Answer I – Illegible/Incomprehensible

L – Language other than English O – Off Topic

**validity** The degree to which accumulated evidence and theory support specific interpretations of test scores proposed by users of a test.

**writing prompt** An assessment topic, situation, or statement to which students are expected to respond in the form of an essay.