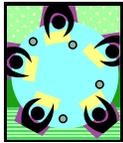


Overview and Implications of Common Core State Standards



Dr. Tammy Heflebower
Vice President
Marzano Research Laboratory
tammy.heflebower@marzanoresearch.com



Marzano Research Laboratory
Powered by Solution Tree

cutting-edge research concrete strategies sustainable success

pp. 1

Objectives for Session



- Connect to Segment one (Routines) from Phil and Bob's session;

- To gain understanding of implications for instruction, assessment, and course rigor that aligns with Common Core State Standards.

- To learn about implementation strategies related to Common Core.



Marzano Research Laboratory
Powered by Solution Tree

cutting-edge research concrete strategies sustainable success

pp. 1

Mission Statement



The Common Core State Standards provide a consistent, clear understanding of what students are expected to learn, so teachers and parents know what they need to do to help them. The standards are designed to be robust and relevant to the real world, reflecting the knowledge and skills that our young people need for success in **college** and **careers**. With American students fully prepared for the future, our communities will be best positioned to compete successfully in the global economy.



- Common Core State Standards Initiative

What do you already know about the design, organization, and content of Common Core?



Important To Know About Common Core . . .

pp. 1

- Aligned with college and work expectations;
- Includes rigorous content and application of knowledge through high-order skills;
- Two sets: 1) language and literacy; 2) mathematics
- Intended to be fewer, higher, and clearer;
- Many educators involved in creating and reviewing them;
- Internationally benchmarked so that all students are prepared to succeed in our global economy and society; and
- Research and evidence-based.

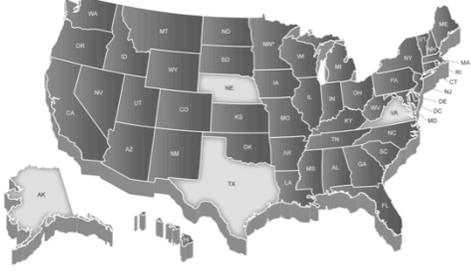



Minnesota Research Laboratory
Powered by Solution Tree

cutting-edge research concrete strategies sustainable success

46 States + DC Have Adopted the Common Core State Standards

pp. 1



*Minnesota adopted the CCSS in ELA/literacy only

Key Advances of the Common Core

pp. 2

MATHEMATICS	ENGLISH LANGUAGE ARTS/LITERACY
Focus, coherence and clarity: emphasis on key topics at each grade level and coherent progression across grades	Balance of literature and informational texts; focus on text complexity
Procedural fluency and understanding of concepts and skills	Emphasis on argument, informative/explanatory writing, and research
Promote rigor through mathematical proficiencies that foster reasoning and understanding across discipline	Speaking and listening skills
High school standards organized by conceptual categories	Literacy standards for history, science and technical subjects

ANCHORED IN COLLEGE AND CAREER READINESS



cutting-edge research concrete strategies sustainable success

Help your teachers understand:

- Common Core content and design
 - Proficiency scales for Common Core
- College and Career Readiness (CCR) skills and ways to infuse them
 - 21st century resources
- Dissemination of existing (and new) curriculum resources
- Assessment implications



cutting-edge research concrete strategies sustainable success

Understanding and Teaching the Content of Common Core



Marzano Research Laboratory
Powered by Solution Tree

cutting-edge research concrete strategies sustainable success

Proficiency Scales

- The Common Core State Standards do a fine job of specifying what is essential for every grade level and course level band;
- Proficiency scales help define what those skills look like at varying degrees of attainment (proficiency.)



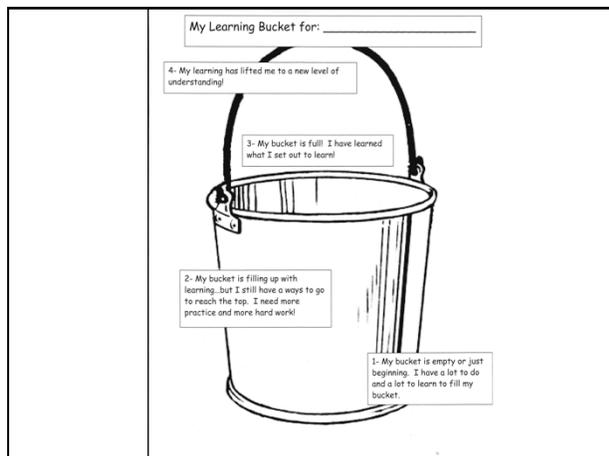
Marzano Research Laboratory
Powered by Solution Tree

cutting-edge research concrete strategies sustainable success

Proficiency Scale	
4	In addition to exhibiting level 3 performance, in-depth inferences and applications that go BEYOND what was taught in class
3	No major errors or omissions regarding any of the information and/or processes (SIMPLE OR COMPLEX) that were explicitly taught Common Core State Standard
2	No major errors or omissions regarding the SIMPLER details and processes BUT major errors or omissions regarding the more complex ideas and processes
1	With HELP , a partial knowledge of some of the simpler and complex details and processes
0	Even with help, no understanding or skill demonstrated

pp. 8

Fourth Grade	
Strand: Reading for Literature	
Topic: Story Elements	
Grade: Fourth	
Score 4.0	In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.
3.5	In addition to score 3.0 performance, in-depth inferences and applications with partial success.
Score 3.0	The student is expected to: <ul style="list-style-type: none"> • describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text (e.g., a character's thoughts, words, or actions) The student exhibits no major errors or omissions.
2.5	No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content
Score 2.0	There are no major errors or omissions regarding the simpler details and processes as the student: <ul style="list-style-type: none"> • recognizes or recalls specific terminology such as: <ul style="list-style-type: none"> o identifies story elements (characters, setting and events) However, the student exhibits major errors or omissions regarding the more complex ideas and processes.
1.5	Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content
Score 1.0	With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.
0.5	With help, a partial understanding of the 2.0 content but not the 3.0 content
Score 0.0	Even with help, no understanding or skill demonstrated.



Marzano Research Laboratory is here to help!

- Website
 - <http://www.marzanoresearch.com>
- FREE resources
 - Classroom tools
 - Proficiency scale bank
 - Scales for common core standards



cutting-edge research concrete strategies sustainable success

Marzano Research Laboratory

Search Documents Search Criteria Users Contact Logout

Search

Marzano Research Laboratory Proficiency Scale Bank

Scale
Item

Common Core

Keyword

Subject

Strand

Grade/Level

Search

- To search the Proficiency Scale Bank, use the options on the left to find the scales or items. You can enter as few or as many criteria as you like.
- Fewer criteria will return a greater number of results, while more criteria will focus the search so that you can find exactly what you want.
- To start a search, select either Scale or Item (Item is currently disabled/empty). You cannot search for both at once. The keyword search is optional. This is useful if you have an idea of what you are looking for and know some phrases that may occur in the scale or item. If the keyword search doesn't return the results you want, you can use the guided search to find what you need.
- The guided search contains a series of drop-down menus with specific criteria. You can use as few or as many of those as you like to identify the scale or item. The criteria were written with a generic set of strands and topics. As you choose each criterion, a new drop-down menu will be generated specific to that criterion. Choose the description that most closely matches what you want to find.
- The grayed-out options in the drop-down menus have no items associated with them, and are automatically disabled to prevent searches with no results. As more items are uploaded to the database, these options will be enabled.
- You can search using both keywords and the drop-down menu criteria at the same time.
- When you have specified the search criteria, click the Search button and a set of results will be displayed.
- To view a scale or item from the search results, click the View button next to the description.

Marzano Research Laboratory
Powered by Solution Tree

Search Documents Search Criteria Users Logout

Search Results

Searching Scales
Subject: Math
Keyword: none entered

click here to start new search

Name	Grade/Level (X)	Criteria
Similarities and Differences	Math	Number - Base Ten (Adding and Subtracting in Base Ten)
Proportions	Grade/Level (8)	Math
Proportions (duplicate)	Grade/Level (8)	Math
Mathematics-K-4-Final 26.pdf	Grade/Level (1)	Math - Operations and the Problems They Solve (Composing and Decomposing Numbers)
Laws of Exponents	Grade/Level (8)	Number - Operations and the Problems They Solve (Properties of Multiplication and Division)
Proportions	Grade/Level (8)	Math
Parallel and Perpendicular Lines	Grade/Level (8)	Math
Parallel and Perpendicular Lines 2	Grade/Level (8)	Algebra - Expressions and Equations (Systems of Linear Equations)
Mathematics-K-4-Final 1.1.pdf	Grade/Level (X)	Math
Mathematics-K-4-Final	Grade/Level (X)	Algebra - Expressions and Equations (Expressions)

Provides Sample Scales... pp.

First Grade

Strand: Reading for Literature

Topic: Story Elements

Grade: First

Score	In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.	Sample Tasks
Score 4.0	In addition to score 3.0 performance, in-depth inferences and applications with partial success.	
Score 3.0	The student is expected to: <ul style="list-style-type: none"> describe characters, settings, and major events in a story, using key details. The student exhibits no major errors or omissions.	<ul style="list-style-type: none"> Given a list of stories, the student will pick one and describe the following: characters, settings and major events.
Score 2.0	No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content.	<ul style="list-style-type: none"> Given a list of characters, settings and major events, the student will match them to the correct story.
Score 1.0	Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content.	
Score 0.0	With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.	
Score 0.0	With help, a partial understanding of the 2.0 content but not the 3.0 content.	
Score 0.0	Even with help, no understanding or skill demonstrated.	

High School--Congruence

Level: High School

Score	In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.	Sample Tasks
Score 4.0	In addition to score 3.0 performance, in-depth inferences and applications with partial success.	
Score 3.0	The student: <ul style="list-style-type: none"> establishes how the criteria for triangle congruence (ASA, SAS and SSS) follow from the definition of congruence in terms of rigid motions (G-CO.1) shows that two triangles are congruent if and only of corresponding pairs of sides and corresponding pairs of angles are also congruent (G-CO.2) The student exhibits no major errors or omissions.	
Score 2.0	There are no major errors or omissions regarding the simpler details and processes as the student: <ul style="list-style-type: none"> recognizes or recalls specific terminology such as: <ul style="list-style-type: none"> congruent performs basic processes, such as: <ul style="list-style-type: none"> using geometric descriptions of rigid motions to transform figures and to predict the effect of a given rigid motion on a given figure (G-CO.1) using the definition of congruence in terms of rigid motions to decide if two figures are congruent (G-CO.1) However, the student exhibits major errors or omissions regarding the more complex ideas and processes.	
Score 1.0	Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content.	
Score 0.0	With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.	
Score 0.0	With help, a partial understanding of the 2.0 content but not the 3.0 content.	

pp. 1

Race to the Top Assessment Proposals

The Process:

- Proposals were due from multi-state consortia on June 23, 2010
- Awards were made in September, 2010
- New Consortia tests to replace current state NCLB tests in 2014-2015

Two Comprehensive Assessment Proposals Funded:

- Partnership for Assessment of Readiness for College and Careers (PARCC)
 - 26 states, 31 million students K-12
- SMARTER Balanced Assessment Consortium (SBAC)
 - 31 states, 21 million students K-12

Note: 12 states currently in both and 6 states in neither



Center for K-12 Assessment & Performance Management at ETS

cutting-edge research concrete strategies sustainable success

pp. 1

Partnership for Assessment of Readiness for College and Careers (PARCC)

Governing Board States
 Participating States

Governing Board States **Participating States**

pp. 2

The PARCC Goals

- Create high-quality assessments
- Build a pathway to college and career readiness for *all* students
- Support educators in the classroom
- Develop 21st century, technology-based assessments
- Advance accountability at all levels

23

pp. 2

Critical to know and understand:

These *standards* demand very high levels of performance from all students, which in turn has significant implications for teaching. **Differentiated instruction, integrated instruction, Learning by Design, and other strategies will need to become commonplace in all classrooms.** There is no excuse for at-risk populations failing to achieve along with the rest of the students in school.

Transitioning to the Common Core State Standards and Next Generation Assessments
 Willard R. Daggett • Susan A. Gendron • Daniel A. Heller



Center for K-12 Assessment & Performance Management at ETS

cutting-edge research concrete strategies sustainable success

College & Career Readiness
AKA: 21st Century Skills

pp. 2

Instruction....

It's not about the technologies....**those will continually change.** Rather it's about how the technologies "**weave themselves into the fabric of everyday life until they are indistinguishable from it.**"

(Weiser, 1991. pg. 94).



Mansano Research Laboratory
Powered by Solution Tree

cutting-edge research concrete strategies sustainable success

pp. 2

Explore a few questions together....

- **Why CCR or 21st Century Skills?**
- **What are the skills?**
- **How might we teach and assess such skills—connecting to your existing efforts?**
- **How might we begin or deepen implementation?**



Mansano Research Laboratory
Powered by Solution Tree

cutting-edge research concrete strategies sustainable success

pp. 3

Why CCR or 21st Century Skills?

"Schools may once have done an adequate job of equipping and sifting young people to take their various places in the prevailing society, **but that world is gone.**"

(Wells & Croxton, pg.1)




Mansano Research Laboratory
Powered by Solution Tree

cutting-edge research concrete strategies sustainable success

Why CCR-21st Century Skills? pp. 3

1. The world is changing and will continue to change dramatically throughout the 21st century.
2. Schools are not keeping up with many of these changes.
3. Mastery of the basic skills of reading, writing, and math is no longer enough.



(Kay, 2010; Gardner, 2010; Darling-Hammond, 2010; Dede, 2010; Johnson & Johnson, 2010; Lemke, 2010; Hargreaves, 2010).

Why Consider CCR-21st Century Skills? pp. 3

- Almost any job that pays more than minimum wage—both blue and white collar—now **calls for employees who know how to solve a range of intellectual and technical problems.**

(p. xxii)

Tony Wagner (2008)



Why CCR-21st Century? pp. 3

- “On that assessment [PISA] of forty countries, the United States ranked thirty-fifth in mathematics and thirty-first in science.”
- “...in each disciplinary area tested, U.S. students scored lowest on the problem-solving items”

(Darling-Hammond, 2010, p. 35).



cutting-edge research concrete strategies sustainable success

Programme for International Student Assessment (2009)¹
(OECD members as of the time of the study in boldface)

Maths			Sciences			Reading		
1. Shanghai, China	600	1.	Shanghai, China	575	1.	Shanghai, China	556	
2. Singapore	562	2.	Finland	554	2.	South Korea	539	
3. Hong Kong, China	555	3.	Hong Kong, China	549	3.	Finland	536	
4. South Korea	546	4.	Singapore	542	4.	Hong Kong, China	533	
5. Taiwan	543	5.	Japan	538	5.	Singapore	526	
6. Finland	541	6.	South Korea	536	6.	Canada	524	
7. Liechtenstein	534	7.	New Zealand	532	7.	New Zealand	521	
8. Switzerland	534	8.	Canada	529	8.	Japan	520	
9. Japan	529	9.	Estonia	528	9.	Australia	515	
10. Canada	527	10.	Australia	527	10.	Netherlands	508	
11. Netherlands	526	11.	Netherlands	522	11.	Belgium	506	
12. Macau, China	525	12.	Liechtenstein	520	12.	Norway	503	
13. New Zealand	519	13.	Germany	520	13.	Estonia	501	
14. Belgium	515	14.	Taiwan	520	14.	Switzerland	501	
15. Australia	514	15.	Switzerland	517	15.	Poland	500	
16. Germany	513	16.	United Kingdom	517	16.	Iceland	500	
17. Estonia	512	17.	Slovenia	512	17.	United States	500	
18. Iceland	507	18.	Macau, China	511	18.	Liechtenstein	499	
19. Denmark	503	19.	Poland	508	19.	Sweden	497	
20. Slovenia	501	20.	Ireland	508	20.	Germany	497	
21. Norway	498	21.	Belgium	507	21.	Ireland	496	
22. France	497	22.	Hungary	503	22.	France	496	

http://en.wikipedia.org/wiki/Programme_for_International_Student_Assessment

CCR--21st Century Skills Help Students With the Changing World

pp. 3



(1) drop-out rate,

“For every 10 students who enter eighth grade, only seven graduate high school on time, and only three complete a postsecondary degree by age 26” (p. 2).

Jobs for the Future (2005)

For whom is it okay to drop out?



Explore a few questions together....

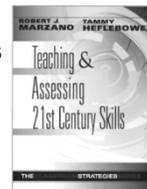
- Why CCR--21st Century Skills?
- What are two categories of skills and the research behind them?
- How might we teach and assess such skills?
- How might we begin implementation?

How do we prepare students?

pp. 4

- Five categories of CCR--21st century skills divided into two sets:

1. Cognitive skills
2. Conative skills



Marzano Research Laboratory
Powered by Beliefnet True

cutting-edge research

concrete strategies

sustainable success

pp. 4



Cognitive Skills

- Mental capabilities like logic, reasoning, thinking and attention to detail

- Teaching of cognitive skills is not unique to the 21st century.

- What **is** new to the 21st century is the idea that cognitive skills should take a **dominant** role in the curriculum.



Marzano Research Laboratory
Powered by Solution Tree

cutting-edge research concrete strategies sustainable success

pp. 4



Conative Skills

- The process of combining what one knows (cognitive) with how one feels (affective) and deciding what action to take in light of both.



Marzano Research Laboratory
Powered by Solution Tree

cutting-edge research concrete strategies sustainable success

pp. 4



21st Century Skills Include:

<h3>Cognitive Skills</h3> <ul style="list-style-type: none"> • Analyzing and using information • Addressing complex problems and issues • Creating patterns and mental models 	<h3>Conative Skills</h3> <ul style="list-style-type: none"> • Understanding and controlling yourself • Interacting with others
--	--



Marzano Research Laboratory
Powered by Solution Tree

cutting-edge research concrete strategies sustainable success

Cognitive Skill—Information Literacy (Analyzing and Using Information)



- Navigating digital sources:
 - Focus on what is important.
 - Find information that is relevant and credible.
- Identifying common logical errors:
 - Identify and dismiss arguments that contain errors in thinking.
- Generating conclusions, and
- Presenting and supporting claims.
 - Present claims and provide adequate support for those claims.

pp. 4

College & Career Readiness Anchor Standards (Reading)

Language Arts/Literacy

1. **Read and make logical inferences; cite textual evidence to support conclusions;**
2. Determine central ideas and analyze development; **summarize key supporting details;**
3. Analyze how and why ideas develop throughout text;
4. Interpret words and phrases as they are used in text;
5. Analyze the structure of texts;
6. **Assess how point of view or purpose shapes the content and style of text;**
7. **Integrate and evaluate content presented in diverse media and formats;**
8. **Delineate and evaluate the argument and specific claims in a text;**
9. Analyze how two or more texts address similar themes or topics; and
10. Read and comprehend complex literary and informational texts.

College & Career Readiness Anchor Standards (Writing)

1. **Write arguments to support claims, using valid reasoning;**
2. Write to explanatory/informative texts to convey complex ideas;
3. Write narratives to develop real or imagined experiences;
4. Produce clear and coherent writing;
5. Develop and strengthen writing;
6. **Use technology to produce and publish writing and to collaborate with others;**
7. Conduct short and sustained research projects;
8. **Gather relevant information from multiple print and digital sources;**
9. **Draw evidence from literary or informational texts; and**
10. Write routinely over extended time frames.

Critical Thinking & Invention (Complex Problems and Issues)

- ▶ Focus
- ▶ Divergent and convergent thinking
 - Brainstorming
 - Logically considering the brainstorming with constraints
- ▶ A strategies for addressing complex problems



pp. 4

Business Research Laboratories
Powered by Solution Tree

cutting-edge research

concrete strategies

sustainable success

Problem-Solving Invention Convention

- Students read about famous inventors and how they got ideas...including how patents were obtained.
- Considered a problem they would like to solve —used scientific method.
- Researched if there was a market.
- If a market, began creating a prototype.
- Create the real thing and test it out.
- Showcase the invention.



Students earned patents



A middle or high school example...

- Senior Project—culminates learning
- Capstone experience
- Provide students the opportunity to explore a passion area in depth.

Round Rock HS near Austin, TX
ThunderRidge High School, near Denver, CO

Senior Project Overview

Project Requirements

- Letter of Intent
- Senior Research paper
- Fieldwork Dialectical Journals
- Mentor



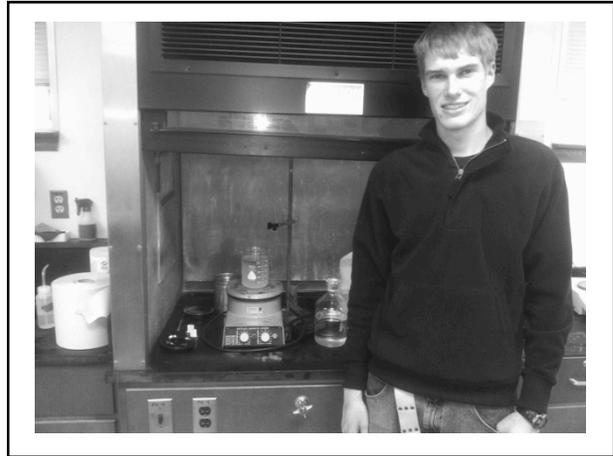
Round Rock HS near Austin, TX
ThunderRidge High School, near Denver, CO

Project Overview

- Portfolio of evidence
- Senior Board Presentation
- Project must demonstrate:
 - A learning stretch
 - Fifteen hours work outside of school



ThunderRidge High School, near Denver, CO



**Cognitive Skill—
Creating Patterns and Mental
Models**



- Graphic Representations
- Drawing & Sketching
- Generating Mental Images
- Conducting Thought Experiments
- Performing Mental Rehearsal

pp. 5



cutting-edge research concrete strategies sustainable success

Connections to Common Core

Mathematical Practices

1. [Make sense of problems and persevere in solving them](#)
2. [Reason abstractly and quantitatively](#)
3. [Construct viable arguments and critique the reasoning of others](#)
4. Model with mathematics
5. Use appropriate tools strategically
6. Attend to precision
7. Look for and make use of structure
8. Look for and express regularity in repeated reasoning

21st Century Skills Include:

Cognitive Skills

- Analyzing and using information
- Addressing complex problems and issues
- Creating patterns and mental models

Conative Skills

- Understanding and controlling yourself
- Interacting with others



Marzano Research Laboratory
Powered by Solution Tree

cutting-edge research

concrete strategies

sustainable success

College & Career Readiness Anchor Standards for Speaking & Listening

1. Prepare for and participate effectively in a range of conversations and collaborations with diverse partners;
2. Integrate and evaluate information presented in diverse media and formats;
3. Evaluate a speaker's point of view, reasoning and use of evidence;
4. Present information so listeners can follow reasoning;
5. Make strategic use of digital media and visual displays; and
6. Adapt speech to a variety of contexts and communicative tasks.

The Common Core State Standards in ELA/Literacy and Mathematics

TeachChannel

How are Common Core assessments changing what we may be accustomed to?



Marzano Research Laboratory
Powered by Solution Tree

cutting-edge research

concrete strategies

sustainable success

Critical to know and understand: pp. 5

A new, next generation *assessment* program will accompany the Common Core State Standards. These assessments range far beyond the usual multiple-choice and short-answer questions. Instead, students will have to **apply their knowledge to real-world situations through performance events**. They will have to work in interdisciplinary situations. They will have to be able to use technology with facility. Some performance events will take weeks to complete.



Transitioning to the Common Core State Standards and Next Generation Assessments

Willard R. Daggett • Susan A. Gendron • Daniel A. Heller

cutting-edge research concrete strategies sustainable success

CCSS Assessments: pp. 5

Assessments may be **performance-based and richer multiple choice**.

One assessment task may test multiple related standards.

Assessments may **require technology skills to respond to questions**.

Assessments may require **critical thinking: for example, claim-evidence - counter-claim approach; compare and contrast tasks; cause and effect relationships**.

Assessments may require **writing in response to text**.

Assessments may be **timed**.

CONCLUSION: A different approach to instruction may be required.

cutting-edge research concrete strategies sustainable success

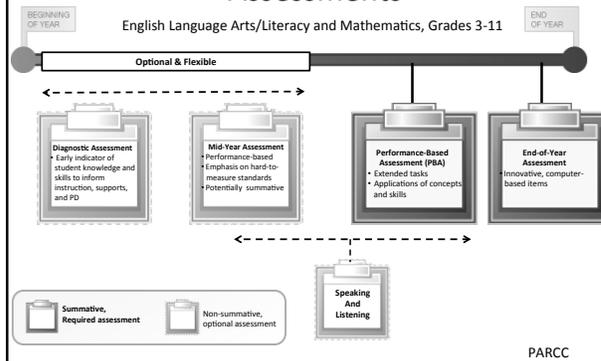
Goal #1: Create High Quality Assessments pp. 5

- **Summative Assessment Components:**
 - **Performance-Based Assessment (PBA)** administered as close to the end of the school year as possible. The ELA/literacy PBA will focus on writing effectively when analyzing text. The mathematics PBA will focus on applying skills, concepts, and understandings to solve multi-step problems requiring abstract reasoning, precision, perseverance, and strategic use of tools
 - **End-of-Year Assessment (EOY)** administered after approx. 90% of the school year. The ELA/literacy EOY will focus on reading comprehension. The math EOY will be comprised of innovative, machine-scorable items
- **Non-Summative Assessment Components:**
 - **Diagnostic Assessment** designed to be an indicator of student knowledge and skills so that instruction, supports and professional development can be tailored to meet student needs
 - **Mid-Year Assessment** comprised of performance-based items and tasks, with an emphasis on hard-to-measure standards. After study, individual states may consider including as a summative component

63

PARCC

Goal #1: Create High Quality Assessments



Elementary Literacy: pp. 6

Drag-and-Drop Example: Students would read a passage that provides information about **different characteristics** of African and Asian elephants. Students would be asked to think about the similarities and differences between the two elephants.

Instructions to students: **Using your mouse, click** on two sentences from the paragraphs you have read in the text, that illustrate how the two elephants differ, and **drag** each sentence into the **"Difference"** box. Then, **click and drag** two sentences from the paragraphs that show how the two elephants are similar, and place them in the **"Similar"** box.





cutting-edge research concrete strategies sustainable success

Elementary Literacy:



African and Asian elephants are the largest of all land animals.

Similarities

Differences

Another Literacy Example: pp. 6

Highlighting Text Example: Read the passage below and answer the two items that follow.

1. Highlight one sentence in the passage the author uses to suggest the boy had a happy life.
2. Highlight one word in the passage that should be hyphenated.





cutting-edge research concrete strategies sustainable success

A Mathematics Example: pp. 6

The picture shows the flowerpots in which Kevin will plant flower seeds. He needs 3 seeds for each pot. Which of the following number sentences shows how many seeds Kevin will need for all of the pots?



A) $5 \times 4 \times 3 =$

B) $(5 \times 4) + 3 =$

C) $(5 + 4) \times 3 =$

D) $5 + 4 + 3 =$

Explain why you chose the number sentence.



cutting-edge research concrete strategies sustainable success

SMARTER
Balanced Assessment Consortium

Sample Item • Performance Event

Gas Bills, Heating Degree Days, and Energy Efficiency

Here is a typical story about an Ohio family concerned with saving money and energy by better insulating their house.

Kevin and Shana Johnson's mother was surprised by some very high gas heating bills during the winter months of 2007. To improve the energy efficiency of her house, Ms. Johnson found a contractor who installed new insulation and sealed some of her windows. He charged her \$600 for this work and told her he was pretty sure that her gas bills would go down by "at least 10 percent each year." Since she had spent nearly \$1,500 to keep her house warm the previous winter, she expected her investment would conserve enough energy to save at least \$150 each winter (10% of \$1,500) on her gas bills.

Ms. Johnson's gas bill in January 2007 was \$240. When she got the bill for January 2008, she was stunned that the new bill was \$235. If the new insulation was going to save only \$5 each month, it was going to take a very long time to earn back the \$600 she had spent. So she called the insulation contractor to see if he had an explanation for what might have gone wrong. The contractor pointed out that the month of January had been very cold this year and that the rates had gone up from last year. He said her bill was probably at least 10% less than it would have been without the new insulation and window sealing.

Ms. Johnson compared her January bill from 2008 to her January bill from 2007. She found out that she had used 200 units of heat in January of 2007 and was charged \$1.20 per unit (total = \$240). In 2008, she had used 188 units of heat but was charged \$1.25 per unit (total = \$235) because gas prices were higher in 2008. She found out the average temperature in Ohio in January 2007 had been 32.9 degrees, and in January of 2008, the average temperature was more than 4 degrees colder, 28.7 degrees. Ms. Johnson realized she was doing well to have used less energy (188 units versus 200 units), especially in a month when it had been colder than the previous year.

Since she used gas for heating only, Ms. Johnson wanted a better estimate of the savings due to the additional insulation and window sealing. She asked Kevin and Shana to look into whether the "heating degree days" listed on the bill might provide some insight.

Argon Energy Co.		Customer	Bill Date
		Ms. Arlene Johnson	January 31, 2008
		42 Blushmont Avenue	Account # 50-732428
		Columbus, OH 43205	REG-000121
Current Renamed Bill			
December 31 reading actual		8300	
January 31 reading actual		8488	
Total units used January 2008		188	
January 2008:	1108 heating degree days	0 cooling degree days	
Price per unit @ \$1.25		\$235	
Energy Use History			
Total units used January 2007		200	
January 2007:	1000 heating degree days	0 cooling degree days	
TOTAL CURRENT CHARGES		\$235	

(continued)

SMARTER
Balanced Assessment Consortium

Sample Item • Performance Event

a. Assess the cost-effectiveness of Ms. Johnson's new insulation and window sealing. You will need to research on "heating degree days" on the internet. In your response, you must do the following:

- Compare Ms. Johnson's gas bills from January 2007 and January 2008.
- Explain Ms. Johnson's savings after the insulation and sealing.
- Identify circumstances under which Ms. Johnson's January 2008 gas bill would have been at least 10% less than her January 2007 bill.
- Decide if the insulation and sealing work on Ms. Johnson's house was cost-effective and provide evidence for this decision.

Enter response here

Submit

(continued)

SMARTER
Balanced Assessment Consortium

Sample Item • Performance Event

b. Create a short pamphlet for gas company customers to guide them in making decisions about increasing the energy efficiency of their homes. The pamphlet must do the following:

- List the quantities that customers need to consider in assessing the cost-effectiveness of energy efficiency measures.
- Generalize the method of comparison used for Ms. Johnson's gas bills with a set of formulas, and provide an explanation of the formulas.
- Explain to gas customers how to weigh the cost of energy efficiency measures with savings on their gas bills.

When you have completed your pamphlet, upload it using the button below.

Select a file... Submit

Performance Event drawn from the Ohio Performance Assessment Project.

SMARTER
Balanced Assessment Consortium

Sample Item • Technology Enhanced

Fifteen students watched a movie and rated the movie on a scale of 1 (very bad movie) to 20 (very good movie). Their ratings are shown in the table.

a. Using the data in the table, complete the box-and-whisker plot by adding the upper quartile, the lower quartile, and the median. A box will be formed with the three points indicated. You will be able to adjust the box once created if needed.

Click on the line to add the upper quartile, lower quartile, and median.

Student	Movie Rating
Andy	14
Bee	8
Cory	5
Doug	8
Jamal	5
Jasper	11
Jenn	12
Katie	13
Martin	9
Pat	11
Rose	13
Siam	4
Sofie	7
Thomas	12
Young	9

Movie Ratings

Movie Rating

Submit

(continued)

SMARTER
Balanced Assessment Consortium

Sample Item • Technology Enhanced

b. The teacher gave the movie a rating of 8. The teacher's rating was added to the ratings of the 15 students. Explain how the addition of the teacher's rating will affect the:

- minimum
- maximum
- upper quartile
- lower quartile
- median

Enter response here

SMARTER
Balanced Assessment Consortium

Sample Item • Extended Performance Event

Americans Dreaming

We are shaped by the stories we are told and that we tell. One of the most powerful and longstanding stories in the United States of America is one about how, with determination, grit, and maybe a bit of luck, a person can become anything he or she wants to be. This is the legend of the American dream. This idea—and the criticisms of it—is a mainstay of American writing and media. Writers, filmmakers, reporters, and others have long been fascinated by the dream of a land where everything is possible. Evidence of this fascination can be found in the countless stories Americans have produced—whether in private, in print, or in public media. Our lives are wallpapered with the accounts of American dreams—in the making, remembered and romanticized, or broken.

There are two major parts in this performance assessment. In the first part, you will be asked to complete a task in which you synthesize the various perspectives on the American dream you have encountered in high school and elsewhere. Your analyses of these texts and the work you do to select, arrange, and understand the different perspectives each offers are important work in and of themselves, but they also prepare the way for the inclusion of an additional voice—your own. In the second part of the assessment, you will have the chance to offer your own perspective on the American dream by crafting a text of your own about an American dreamer you know.

The parts of this performance assessment are sequenced in a certain order. Be sure to complete them in order because the work you do in the first parts will help you with the later portions of the assessment. The chart on the next page shows what you will be expected to do and submit at the end of this assessment. The specific prompts for each of the tasks are found in the pages that follow.

(continued)

Performance Event © 2009 Stanford University School Redesign Network and the Ohio Department of Education

SMARTER
Balanced Assessment Consortium

Sample Item • Extended Performance Event

Americans Dreaming

We are shaped by the stories we are told and that we tell. One of the most powerful and longstanding stories in the United States of America is one about how, with determination, grit, and maybe a bit of luck, a person can become anything he or she wants to be. This is the legend of the American dream. This idea—and the criticisms of it—is a mainstay of American writing and media. Writers, filmmakers, reporters, and others have long been fascinated by the dream of a land where everything is possible. Evidence of this fascination can be found in the countless stories Americans have produced—whether in private, in print, or in public media. Our lives are wallpapered with the accounts of American dreams—in the making, remembered and romanticized, or broken.

There are two major parts in this performance assessment. In the first part, you will be asked to complete a task in which you synthesize the various perspectives on the American dream you have encountered in high school and elsewhere. Your analyses of these texts and the work you do to select, arrange, and understand the different perspectives each offers are important work in and of themselves, but they also prepare the way for the inclusion of an additional voice—your own. In the second part of the assessment, you will have the chance to offer your own perspective on the American dream by crafting a text of your own about an American dreamer you know.

The parts of this performance assessment are sequenced in a certain order. Be sure to complete them in order because the work you do in the first parts will help you with the later portions of the assessment. The chart on the next page shows what you will be expected to do and submit at the end of this assessment. The specific prompts for each of the tasks are found in the pages that follow.

(continued)

Performance Event © 2009 Stanford University School Redesign Network and the Ohio Department of Education

SMARTER
Balanced Assessment Consortium

Sample Item • Extended Performance Event

Task Overview

Task	What You Will Do	What to Submit
Part 1	Select 3-5 texts that you will focus on for your anthology: "Perspectives on the American Dream." Make notes on each text.	<ul style="list-style-type: none"> • one page of notes on each selected text saved electronically
Part 2	Synthesize the various perspectives on the American dream represented in your selection of texts.	<ul style="list-style-type: none"> • 1,000 word typed essay saved electronically
Part 3	Conduct research on an individual to create an original profile of an American dreamer. You may choose someone you know personally or someone that you can learn about through research.	<ul style="list-style-type: none"> • 750-1,000 word typed essay saved electronically
Part 4	Write a reflective essay on what you learned from completing the performance assessment.	<ul style="list-style-type: none"> • 250-500 word typed commentary

Note: Word count limits are guidelines and not strict requirements.

(continued)

Performance Event © 2009 Stanford University School Redesign Network and the Ohio Department of Education

SMARTER
Balanced Assessment Consortium

Sample Item • Extended Performance Event

I. Perspectives on the American Dream

At this point in your career as a reader and writer, you already know a lot about what other people say for and against the American dream. In this task you will have an opportunity to take stock of and reflect on that learning—to gather texts you've read previously that grapple with the theme and to notice the arguments different authors make about whether the American dream is a driving force or an illusion.

Your teacher will lead a whole class brainstorm to list several texts you have read in high school English or that you have encountered elsewhere that touch on the idea of the American dream. These texts may be fiction or nonfiction, print or other media such as film. The aim is to gather a group of texts, each of which makes an argument about the American dream (i.e., where people's lives are shaped by their belief in, pursuit of, or disappointment in searching for that dream).

Part 1. Select three to five texts dealing with the American dream for the following task. The selected texts must represent at least two different perspectives and must include at least two different types of text (e.g., print text, visual media, audio media, multi-media, digital media). **At least two texts must be print (written) texts** (or a form of text with written versions of the text, for example, a transcript, script, or lyrics).

(continued)

Performance Event © 2009 Stanford University School Redesign Network and the Ohio Department of Education

Assessment Consortium

For EACH of the texts you chose, make notes in response to the following questions:

- What message or perspective about the American dream is conveyed in the text?
- What methods are used to convey this perspective? How effective are these methods in persuading/appealing to the audience?
- What are the conditions in the world (historical/cultural) in which this text was produced? How does this knowledge help you understand the text? (You may need to do some research to obtain this information.)
- How credible (believable) is this perspective on the American dream?

In your notes, please refer to specific examples from the texts to support your observations. These notes will be submitted to your teacher to be scored as part of this performance event.

You should develop one page of notes per task that can be saved electronically.

may work in small groups to study and discuss a common set of texts, but you must complete the written portions of the task individually.

(continued)

Critical to know and understand: pp. 7

For teachers, this new form of evaluation means developing a full understanding of performance events, how to construct them, and how to evaluate student work. In order to prepare students for such assessments, teachers will have to give students ample practice in this style of evaluation. In addition, the new assessments require teachers to make substantial use of *formative assessment* techniques.

Transitioning to the Common Core State Standards and Next Generation Assessments
Willard R. Daggett • Susan A. Gendron • Daniel A. Heller

 cutting-edge research concrete strategies sustainable success

Key Steps to Successful Common Core Implementation pp. 7

-  **Scale development based on essential outcomes (Common Core Standards)**
-  **Identification of appropriate instructional tasks**
-  **Assessment development based on the scales**



 cutting-edge research concrete strategies sustainable success

Implication 1 . . .

pp. 7

The promise of standards . . .

These Standards are not intended to be new names for old ways of doing business. They are a call to take the next step. It is time for states to work together to build on lessons learned from two decades of standards based reforms. It is time to recognize that standards are not just promises to our children, but promises we intend to keep.



www.corestandards.org/

Marzano Research Laboratory
Powered by Solution Tree

cutting-edge research

concrete strategies

sustainable success

Implication 2 . . .

pp. 7

The research has been clear and consistent for over 30 years--- collaborative cultures in which teachers focus on improving their teaching practice and are well led and supported by school principals result in better learning for students.

Michael Fullen, May 2011



Marzano Research Laboratory
Powered by Solution Tree

cutting-edge research

concrete strategies

sustainable success

Sometimes 21st Century Skills are Difficult to Measure.

- Typically they are vague and atypical in how we measure them.
 - How do we measure things like love, thoughtfulness, kindness, fear, concern?
 - We know them when we see or experience them.
 - We need to re-think our teaching and assessing to consider skills that are atypical for us.



Marzano Research Laboratory
Powered by Solution Tree

cutting-edge research

concrete strategies

sustainable success

THANK YOU!

Tammy Heflebower
Vice President
tammy.heflebower@marzanoresearch.com



Marzano Research Laboratory
Powered by Solution Tree

cutting-edge research

concrete strategies

sustainable success