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ADMINISTRATORS
CONFERENCE

NAEP Data Tools & 2019 Results

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What is NAEP?

- The only assessment that measures what U.S. students know and can do in various subjects across the nation, states, and in some cases, urban districts.
- NAEP results are released as “The Nation’s Report Card”
- www.nationsreportcard.gov



National Assessment of
Educational Progress

What does NAEP measure?



Overall student performance for key demographic groups



Change over time

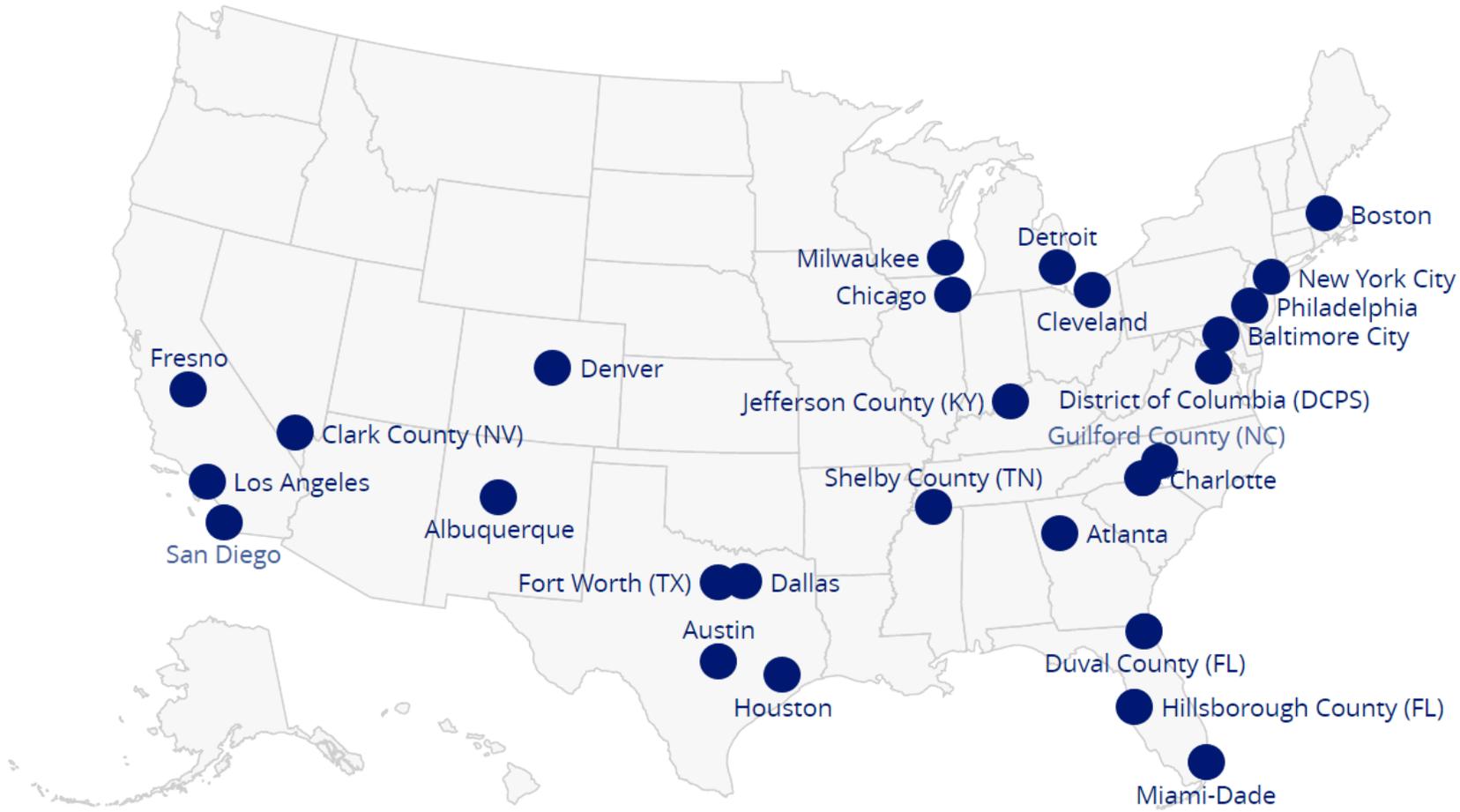


Differences between the nation, states, and urban districts

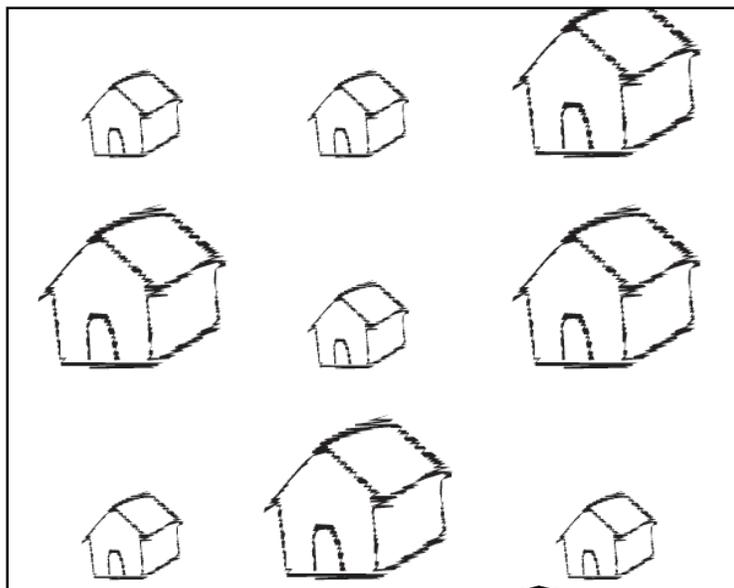
NAEP Jurisdictions

- NAEP produces **jurisdiction-level** results for...
 - All 50 states,
 - Department of Defense Education Activity (DoDEA)
 - District of Columbia,
 - Puerto Rico, and
 - 27 urban districts

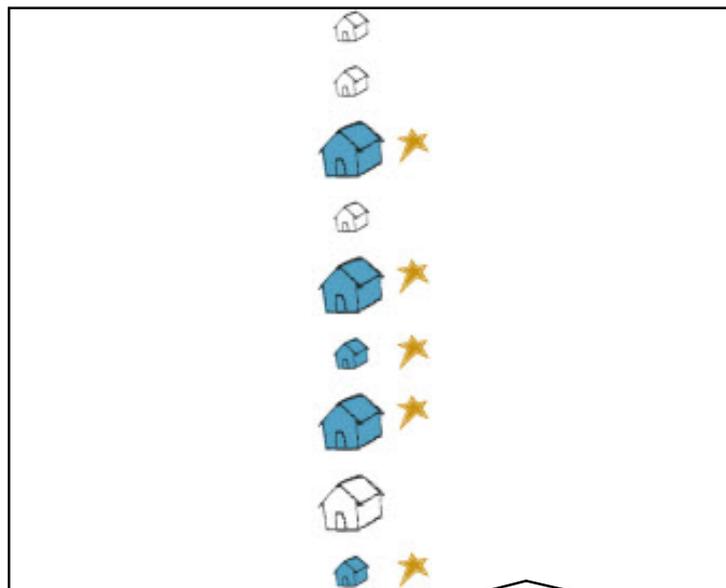
NAEP Urban Districts



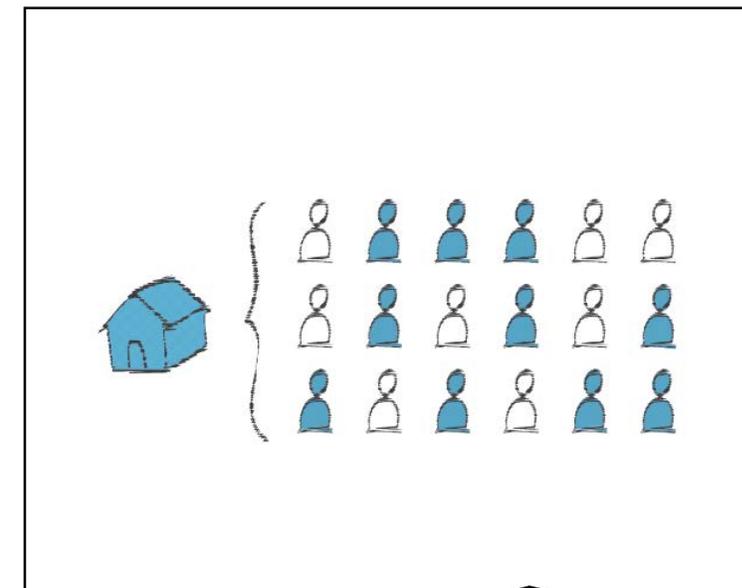
NAEP School and Student Selection



1. Identify all eligible schools



2. Sample schools



3. Sample students

NAEP Administration

- Six week period
- Each student assessed in one subject
- Students take a small portion of the item pool
- Accommodations provided as necessary for
 - students with disabilities
 - English language learners

JANUARY

M	T	W	T	F
	1	2	3	4
7	8	9	10	11
14	15	16	17	18
21	22	23	24	25
28	29	30	31	

FEBRUARY

M	T	W	T	F
				1
4	5	6	7	8
11	12	13	14	15
18	19	20	21	22
25	26	27	28	

MARCH

M	T	W	T	F
				1
4	5	6	7	8
11	12	13	14	15
18	19	20	21	22
25	26	27	28	29

NAEP Tools On the Web



NAEP Data Explorer

Analyze NAEP data and create tables, maps, and other graphics.



Item Maps

See what students at each achievement level are likely to know and be able to do.



NAEP Questions Tool

Search, sort, and print NAEP sample questions.



State Comparisons

Compare state performance by various demographic groups.



Test Yourself

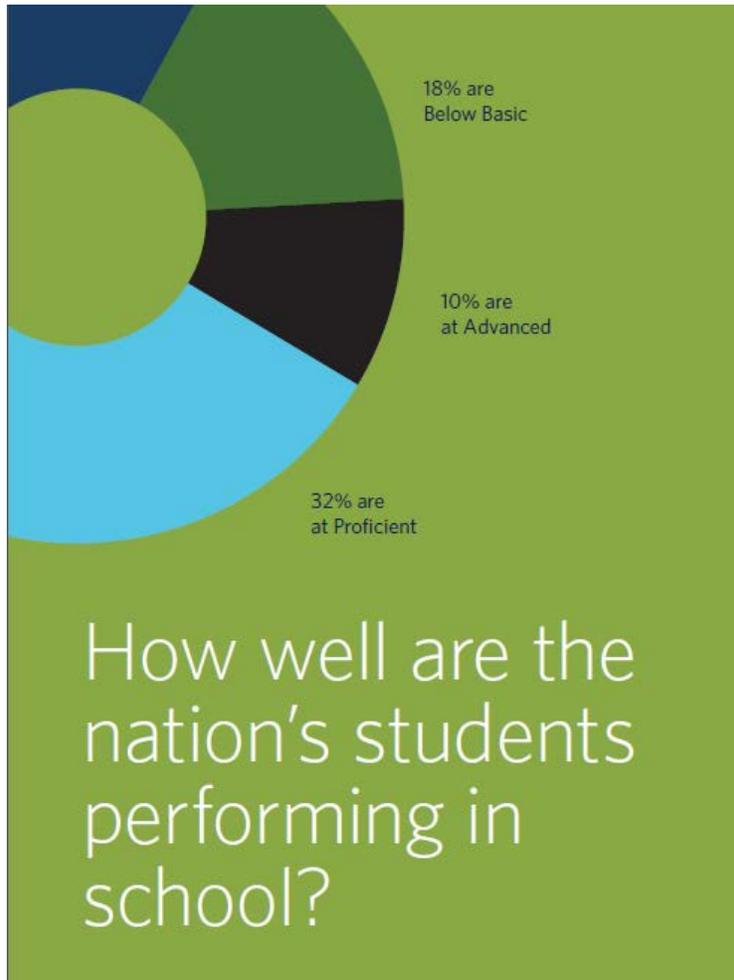
Try out actual questions administered in the NAEP assessments.



State and District Profiles

See NAEP performance results and student demographics for states and participating districts.

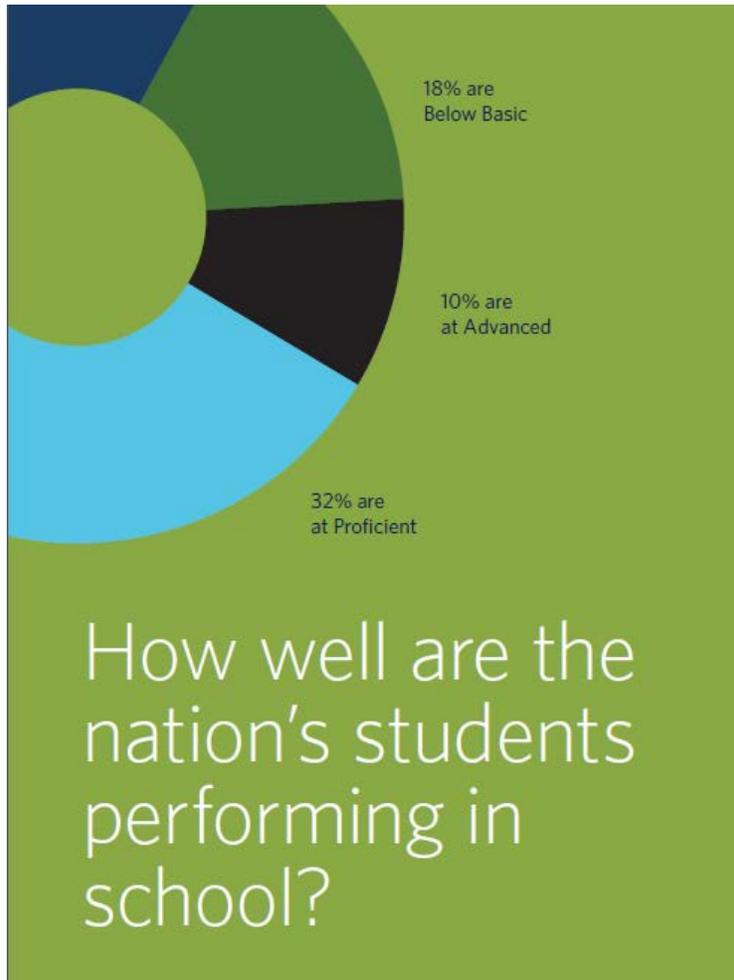
NAEP Data Explorer



- The NAEP Data Explorer allows you to view national results or search for detailed results for various subjects, grades, and jurisdictions.
- Student, teacher, and school variables let you look behind the results to see which factors relate to student performance.

<http://nces.ed.gov/nationreportcard/naepdata>

NAEP Data Explorer



- Create custom tables, graphics, and maps to illustrate the results in your presentations and reports.
- The NDE lets you create an account and save reports, copy and edit existing reports, and save, share, or export statistical tests and charts.

<http://nces.ed.gov/nationreportcard/naepdata>



With the NAEP Data Explorers you can **create statistical tables, charts, maps** to help you **find answers**. Explore decades of assessment results, as well as information about factors that may be related to student learning.

NOT SURE WHERE TO START? Search all databases.

(Enter a grade, subject, state, or student group to see a list of related results.)

Search NDE, LTT, HSTS, NIES databases



MAIN DATA EXPLORER (NDE)

Start exploring student achievement. It's easy!

(You may edit criteria at any time after entering the tool.)

Select a Subject



Select a Grade



Select a Jurisdiction



ENTER THE MAIN NAEP DATA EXPLORER

Already know what you're looking for? [SKIP THIS STEP](#)

Define Criteria

RESET CRITERIA 

The selected criteria will generate 3 reports

CREATE REPORT

SUBJECT | GRADE | YEAR | SCALE **HIDE** 

SUBJECT: 

GRADE: 

YEAR: 

¹Accommodations were not permitted for this assessment

SCALE: 
 
 

[view scale details](#)

JURISDICTION **SHOW** 

DATA TABLE 1

RENAME EDIT TABLE LAYOUT 

ADD SIGNIFICANCE TEST

Average scale scores for grade 4 mathematics, by gender [GENDER] and jurisdiction: 2019, 2017, and 2015

Year	Jurisdiction	Gender	Average scale score
2019	Oklahoma	Male	239
		Female	236
2017	Oklahoma	Male	239
		Female	236
2015	Oklahoma	Male	242
		Female	238

NOTE: Some apparent differences between estimates may not be statistically significant.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2015, 2017, and 2019 Mathematics Assessments.

View Data Table **Create Chart** Create Significance Test Create Gap Analysis Run Regression Analysis

DATA CHART 1

RENAME COPY CHART CREATE NEW DELETE

Customize data by refining the criteria to be included in your chart.

JURISDICTION

- State
 - Oklahoma

YEAR/STUDY

- Year/Study
 - 2019
 - 2017
 - 2015

STATISTIC

- Average scale scores



Bar Chart



Column Chart



Line Chart

BAR VALUES: Gender

VALUES GROUPED BY: Year

CREATE CHART

- Make your data look more visually appealing by creating a chart.

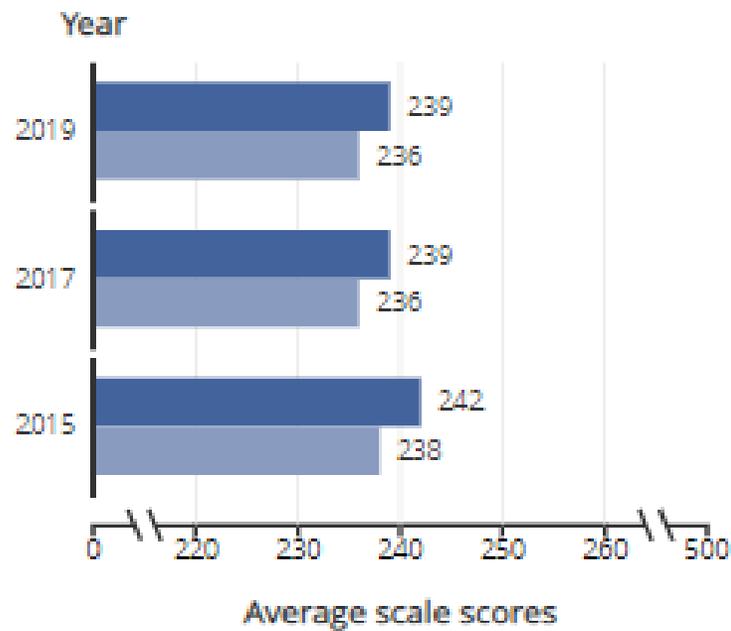
Modify data by selecting options from drop-down menus.

Oklahoma ▼

COPY CHART  CREATE NEW  SAVE  SHARE OUTPUT 

Average scale scores for grade 4 mathematics, by Gender [GENDER] for jurisdiction: 2019, 2017, and 2015

Oklahoma



■ Male ■ Female

NOTE: The NAEP Mathematics scale ranges from 0 to 500. Some apparent differences between estimates may not be statistically significant.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2015, 2017, and 2019 Mathematics Assessments.

NAEP Questions Tool

- Explore thousands of released questions from the NAEP assessments, and see actual scoring guides, student responses, and scoring commentary.
- Try answering some of the questions or creating sample assessments for your classroom.
- Select a subject and grade and get a **pre-selected assessment**, or make all the choices yourself and create your own **customized** assessment.
- The tool also allows users to create their own customized assessments, create rosters, and save tests for future use.

NAEP Questions Tool

Already have an account? [Sign In](#)

Make a roster and save your selections. [Create an account](#)

Search Questions

- Explore thousands of questions by grade, year, and content area.
- See sample student responses and data.

search

Test Yourself

- Try answering some of the same questions that students have responded to on actual NAEP assessments.
- See how your scores compare to those of students across the nation.

try

Create Tests

- Select a subject and grade and get a **pre-selected assessment**, or make all the choices yourself and create your own **customized assessment**.

pre-selected

customized

enter your student test ID to take your assessment

Select a subject and a grade. Enter the number of questions. Select difficulty level (one or more). Click Start Test.

Cancel

The main interface features a grid of subject buttons: Reading, Mathematics, Science, Writing, Civics, Arts, LTT Reading, TEL, LTT Mathematics, Economics, Geography, and U.S. History. A central atom icon is positioned between the Science and Civics buttons. To the right of the subject grid are three grade selection buttons: Grade 4, Grade 8, and Grade 12.

Reset

Number of questions:
(Enter number between
1 and 30)

5

Difficulty Levels:

- Easy
- Medium
- Hard

Reading Difficulty Levels

NQT HOME Help

Select subject and grade(s) to get started.

Subject: **Grade:** Grade 4 Grade 8 Grade 12 **Questions available:**

Select any of the available options below to further narrow your search results:

Content Classifications

- Contexts for Reading (1992-2007)
 - Reading for Literary Experience
 - Reading for Information
- Aspects of Reading (1992-2007)
 - Forming a General Understanding
 - Developing Interpretation
 - Making Reader/Text Connections
 - Examining Content and Structure
- Content Area (2009 and on)
 - Literary
 - Informational
 - Vocabulary
- Cognitive Target (2009 and on)
 - Locate/Recall
 - Integrate/Interpret
 - Critique/Evaluate

Types

- Types
 - Multiple Choice - MC
 - Short Constructed Response - SCR
 - Extended Constructed Response - ECR

Years

- All Years
 - 2017
 - 2013
 - 2011
 - 2009
 - 2007
 - 2005
 - 2003
 - 2002
 - 2000
 - 1998
 - 1994
 - 1992

Difficulty Levels

- Difficulty
 - Easy
 - Medium
 - Hard

Mathematics Complexity & Difficulty Levels

NQT HOME Help

Select subject and grade(s) to get started. OK Cancel Reset

Subject: Mathematics **Grade:** Grade 4 Grade 8 Grade 12 Questions available:
Get Count

Select any of the available options below to further narrow your search results:

Content Classifications

- Content Area
 - Number properties and operations
 - Measurement
 - Geometry
 - Data analysis, Statistics, and Probability
 - Algebra
- Ability (1990-2003)
 - Conceptual understanding
 - Procedural knowledge
 - Problem solving
- Complexity (2005 and on)
 - Low
 - Moderate
 - High

Types

- Types
 - Multiple Choice - MC
 - Selected Response - SR
 - Short Constructed Response - SCR
 - Extended Constructed Response - ECR

Years

- All Years
 - 2017
 - 2013
 - 2011
 - 2009
 - 2007
 - 2005
 - 2003
 - 1996
 - 1992
 - 1990

Difficulty Levels

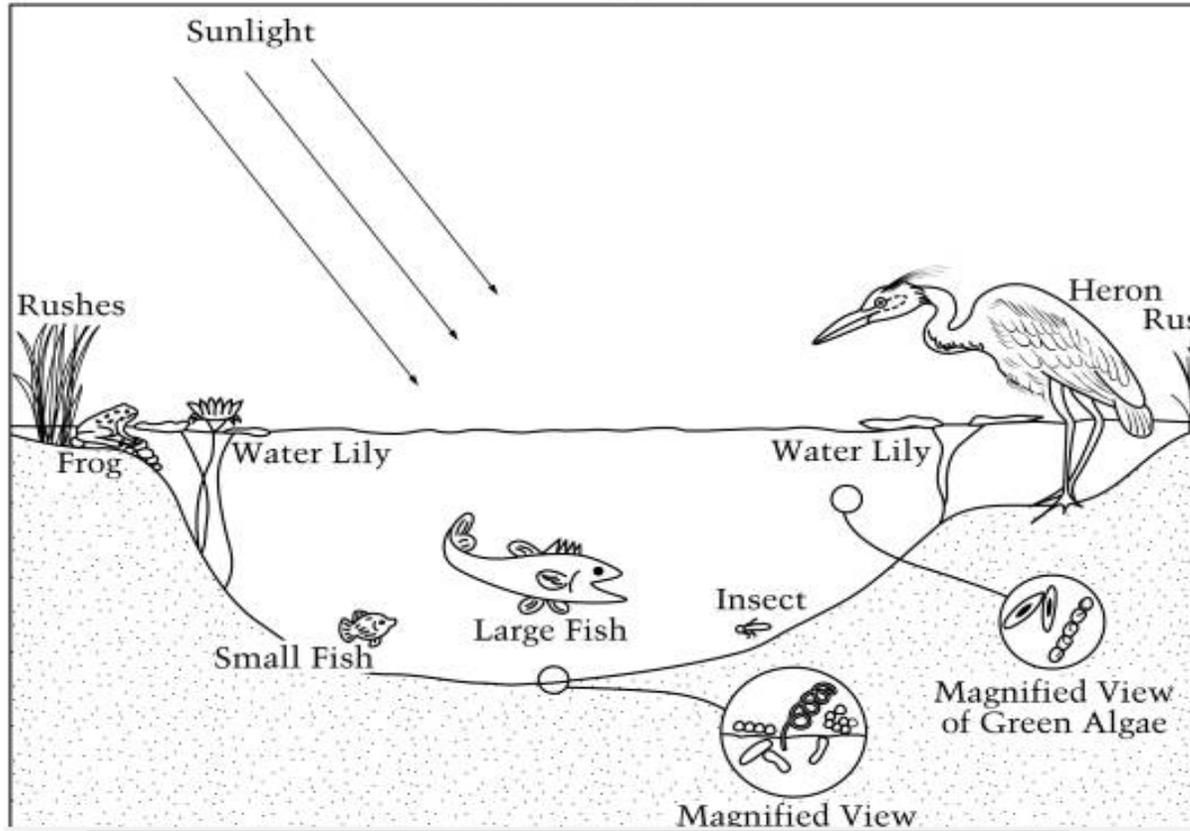
- Difficulty
 - Easy
 - Medium
 - Hard

[Prev](#)

QUESTION: 1 of 5

[Next](#)

POND ECOSYSTEM



Which living things in the pond system break down dead plants and animals?

- Green algae
- Bacteria
- Rushes
- Frogs

Test: Science, Grade 4

Time: 3m 22s

Number of Questions: 5

Print



You have completed

Science, Grade 4

Correct Answers: 5 out of 5 = 100%

Test Results

Exit



NAEP Item Maps

- NAEP item maps are tools that help readers understand student performance.
- For each assessment, example questions are “mapped” onto the NAEP scale for that subject.
- More difficult questions are at the top of the map and easier questions at the lower part of the map.
- The map provides a description of the knowledge or skill needed to answer each question.

Selection of Item Map

SELECT SUBJECT:

Mathematics

SELECT GRADE:

Grade 4

SELECT YEAR:

2019

STUDENT GROUP PERFORMANCE

SHOW

See what students in the nation or your state were likely able to do.

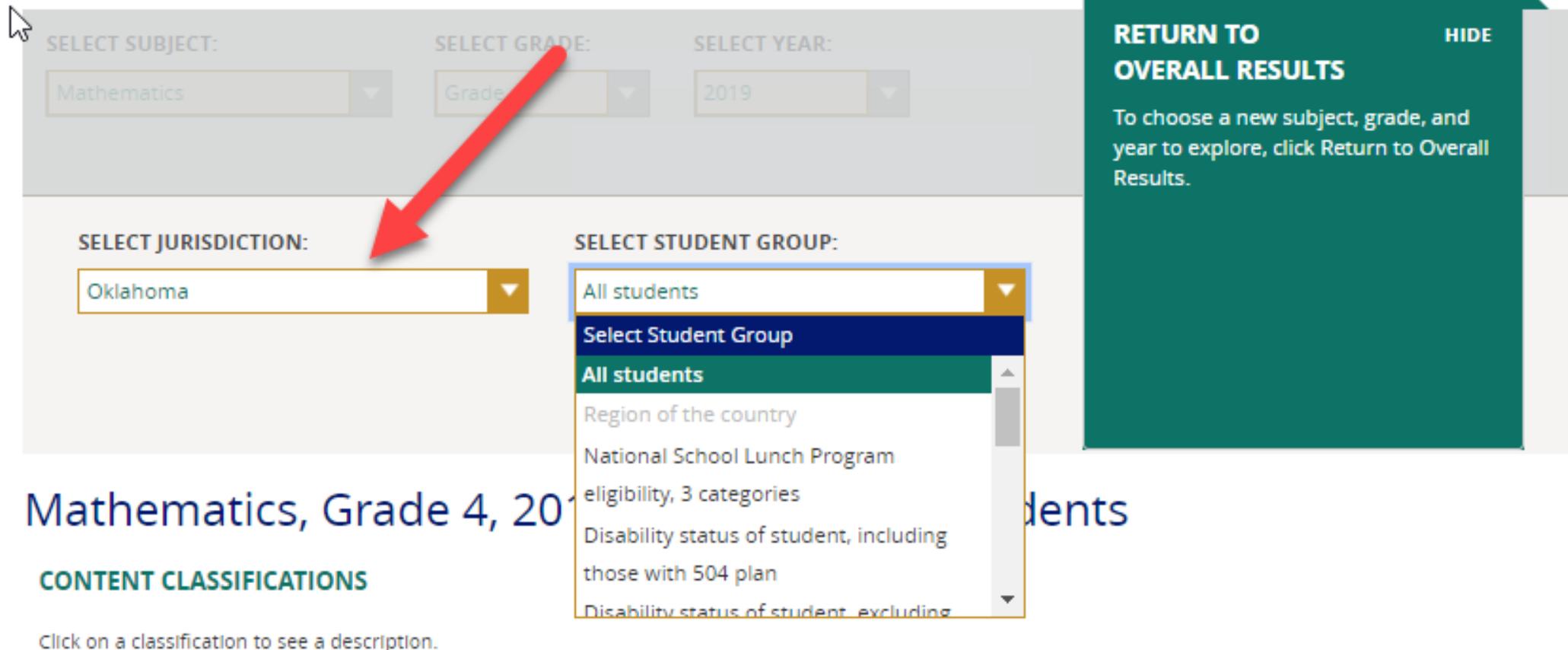
Mathematics, Grade 4, 2019

CONTENT CLASSIFICATIONS

Click on a classification to see a description.

<p>● Number Properties and Operations</p>	<p>■ Measurement</p>	<p>▲ Geometry</p>	<p>▼ Data Analysis, Statistics, and Probability</p>	<p>◆ Algebra</p>
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Selection of Jurisdiction for Item Maps



SELECT SUBJECT: Mathematics

SELECT GRADE: Grade

SELECT YEAR: 2019

SELECT JURISDICTION: Oklahoma

SELECT STUDENT GROUP:

- All students
- Select Student Group
- All students
- Region of the country
- National School Lunch Program eligibility, 3 categories
- Disability status of student, including those with 504 plan
- Disability status of student, excluding

RETURN TO OVERALL RESULTS HIDE

To choose a new subject, grade, and year to explore, click Return to Overall Results.

Mathematics, Grade 4, 2019

CONTENT CLASSIFICATIONS

Click on a classification to see a description.

- 270
- 267 Find and describe how to create the largest result in a given expression (calculator available)—Minimal (CR)
 - ◆ 264 Determine and apply a rule based on an input-output table (calculator available)—Partial (CR)

260

- ▲ 258 Describe the faces of a three-dimensional figure (calculator available)—Correct (SR)
- ◆ 255 Place objects on a grid and identify the coordinates of an object (calculator available)—Correct (SR)
- ◆ 254 Determine and apply a rule based on an input-output table (calculator available)—Minimal (CR)
- 253 Convert from feet to inches—Correct (MC)
- 253 Solve a multi-part problem using area of a rectangle—Partial (CR)

250

- ▲ 251 Use an interactive tool to create a parallel line segment—Correct (CR)

- 244 Use an interactive tool to plot a point on a number line—Correct (SR)
- ◆ 243 Translate a situation into an algebraic expression (calculator available)—Correct (MC)

240

- ▼ 239 Classify events as likely, unlikely, certain, or impossible—Partial (SR)
- ◆ 236 Solve a one-variable linear equation (calculator available)—Correct (CR)
- ▲ 234 Identify a property a group of polygons have in common—Correct (MC)

230

- ▼ 230 Represent the probabilities of three outcomes using a picture—Correct (SR)

220

- ▲ 220 Determine the number of right angles in a figure (calculator available)—Correct (CR)

249 NAEP Proficient



256

238

219

State Comparison/State Profiles

- Find key data for state/jurisdiction performance on the National Assessment of Educational Progress (NAEP) assessments in mathematics, reading, writing, and science at grades 4, 8 and 12 (where applicable).
- View trends and demographics, download snapshot reports, and compare results for each state/jurisdiction to the nation and to the other states.

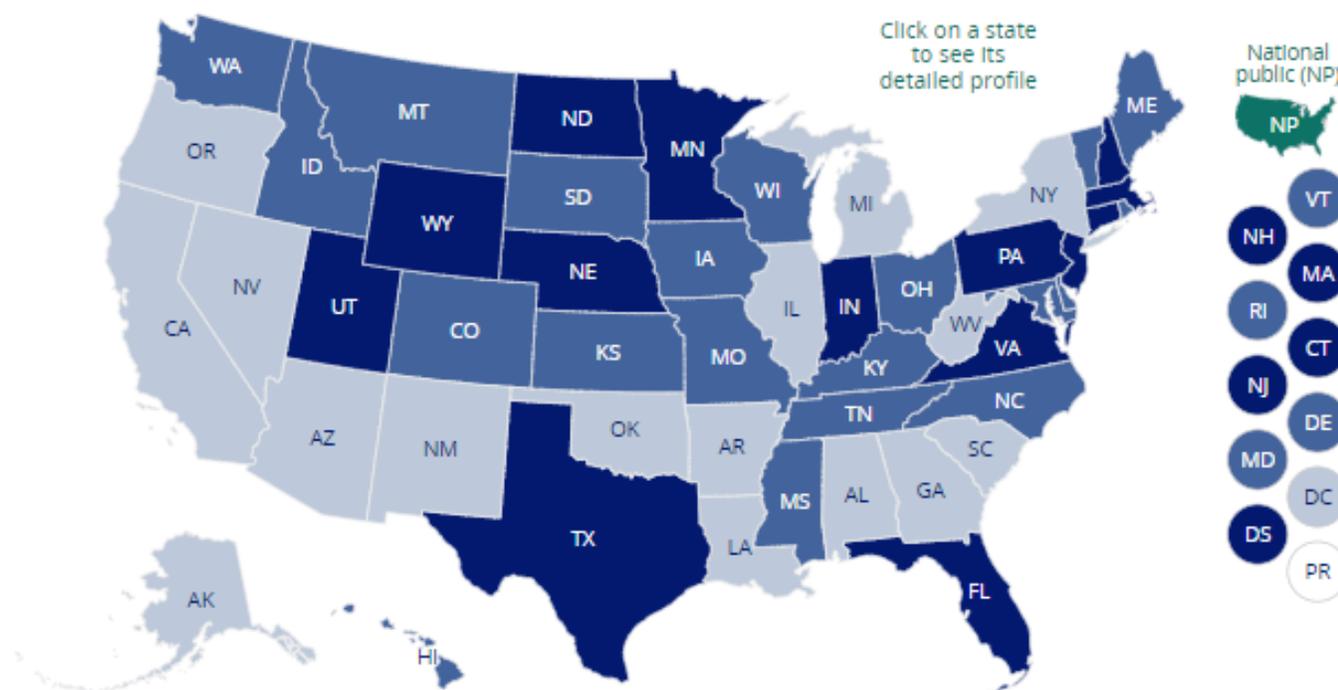
GRADE 4 | MATHEMATICS | 2019

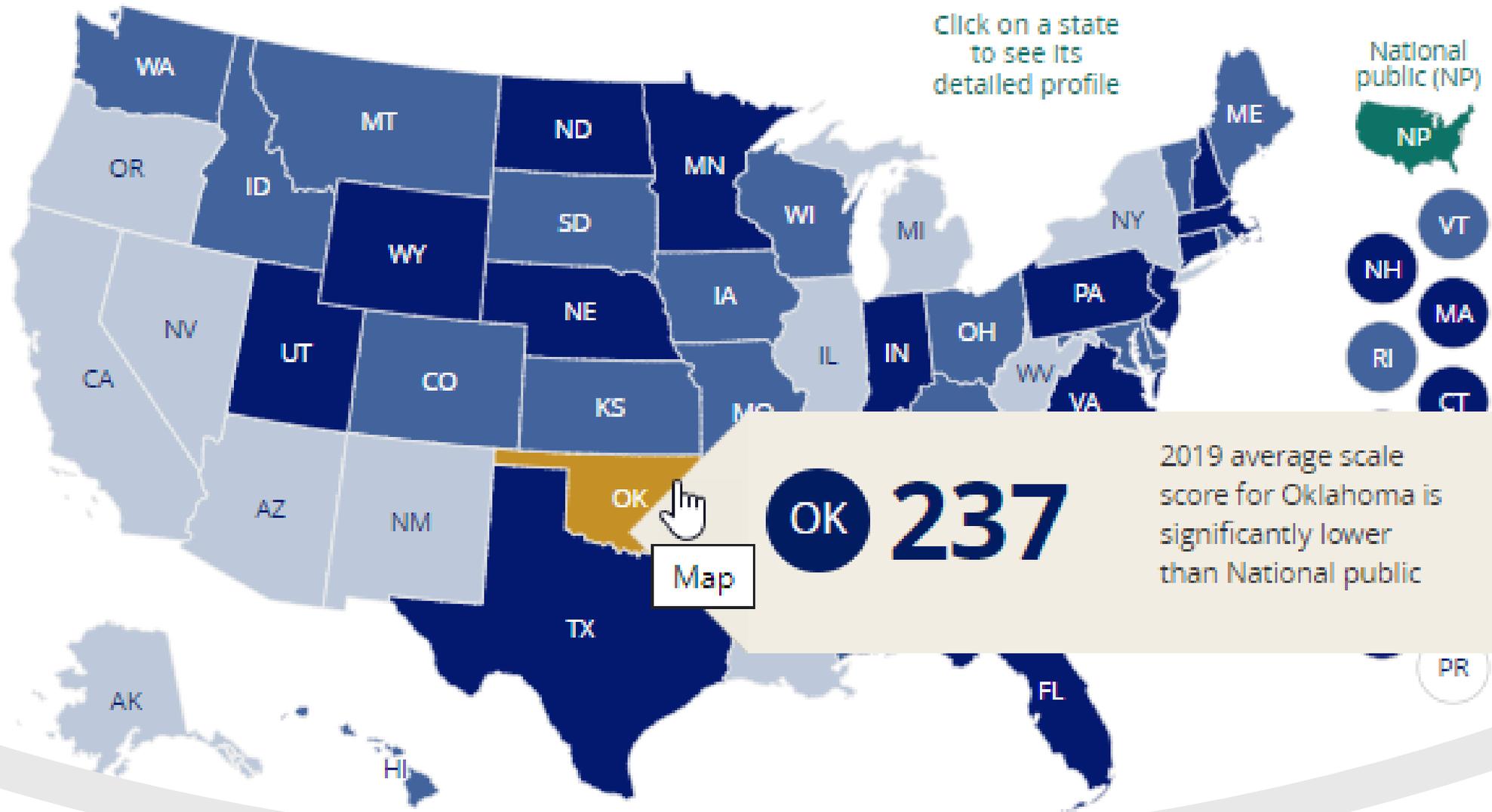
2019

AVERAGE SCALE SCORES

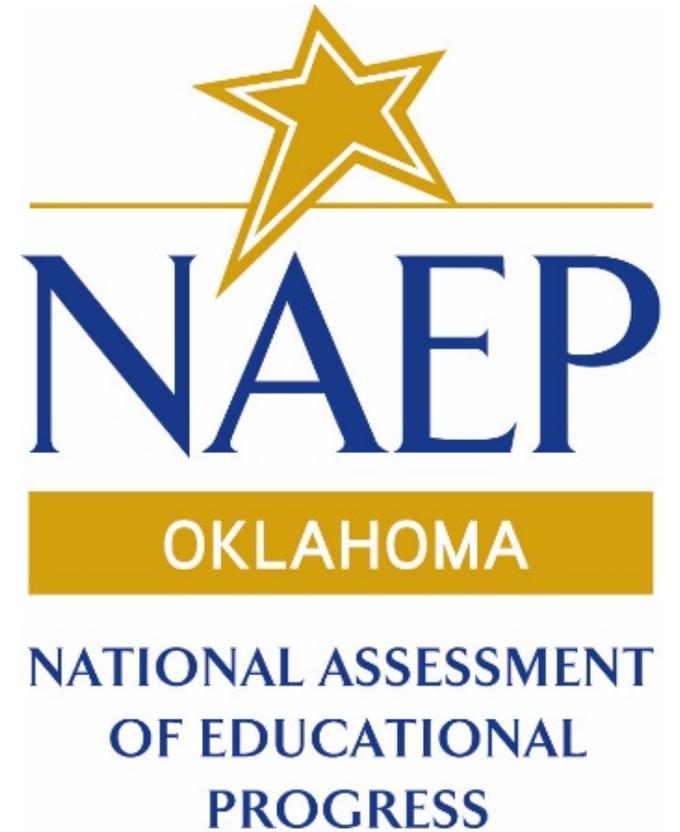


Mathematics, grade 4, Difference in average scale scores between jurisdictions, for all students [TOTAL] = All students, 2019





NAEP 2019 Mathematics and Reading Results



Oklahoma NAEP Results

	Reading 4	Reading 8	Math 4	Math 8
2017	217	261	237	275
2019	216	258	237	276
2019 vs 2017	-1	-3*	-0-	+1

National NAEP Results

	Reading 4	Reading 8	Math 4	Math 8
2017	221	265	239	282
2019	219	262	240	281
2019 vs 2017	-3*	-3*	+1*	-1*

Thank you

- Please contact me with questions, requests for information, opportunities to provide your staff information or training.

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