The Nation's Report Card: Reading and Mathematics Achievement Levels

The National Assessment of Educational Progress (NAEP), or The Nation's Report Card, measures students' reading and math learning across the nation, in 53 states and jurisdictions, and in 26 urban school districts for grades 4 and 8, and nationwide for grade 12. The NAEP reading and math assessments are administered every two years for grades 4 and 8, and every four years for grade 12.

The reading assessments measure students' knowledge and skills in literary and informational reading. The math assessments test knowledge and skills associated with number properties and operations, measurement; geometry; data analysis, statistics and probability; and algebra.

NAEP Achievement Levels

- Students performing at the ***NAEP Basic*** level have partial mastery of prerequisite knowledge and skills that are fundamental for performance at the ***NAEP Proficient*** level.
- Students performing at the ***NAEP Proficient*** level have demonstrated competency over challenging material, including subject-matter knowledge, application of such knowledge to real-world situations, and analytical skills.[1]
- Students performing at the ***NAEP Advanced*** level have shown superior performance.

1. NAEP achievement levels are distinct from those used on state assessments. *NAEP Proficient* does not signify meeting grade level expectations, which are set through state assessments.

Examples of skills and knowledge students are likely able to know at each achievement level in each subject are listed below:

For a full set of expected skills and knowledge at each level, please visit this link.

GRADE 4

READING

NAEP Basic

- Sequence or categorize events from a literary text.
- Determine the relevant meaning of familiar words using context from a section of an informational text.

NAEP Proficient

- Describe the impact of a character's actions or explain how characters influence one another.
- Provide an opinion using relevant information from the text.

NAEP Advanced

- Determine the meaning of nonliteral phrases.
- Distinguish the theme of a text.

MATH

NAEP Basic

- Locate whole numbers on a number line.
- Identify lines of symmetry.

NAEP Proficient

- Add and subtract multi-digit whole numbers, fractions, and decimals in single and multi-step problems.
- Apply basic properties of operations to solve problems.

NAEP Advanced

- Understand and be able to use inverse operations[2] and simple ratios.[3]
- Compare and order whole numbers, fractions, and decimals to hundredths.

GRADE 8

READING

NAEP Basic

- Identify basic literary elements such as the order of events, character traits, and main idea.
- Determine the main idea of an informational text drawing on explicit features from the text.

NAEP Proficient

- Make inferences and draw conclusions about literary elements such as character interactions and plot features.
- Identify one or both sides of an argument in an informational text.

NAEP Advanced

- Interpret descriptive or figurative language and how those impact the meaning of the text.
- Use text evidence from multiple sources to substantiate claims made by an author.

MATH

NAEP Basic

- Simplify expressions involving integers.
- Find a missing angle in a triangle given two angles.

NAEP Proficient

- Apply strategies to solve Pythagorean Theorem[4] problems.
- Solve problems involving capacity, area, and weight.

NAEP Advanced

- Solve problems involving area, including composing and decomposing complex figures.
- Analyze and critique graphical displays to justify appropriateness and solve problems.

2. **Inverse Operations:** Inverse operations are two operations that are opposite of one another. For example, the inverse operation of a + b is a - b.
3. **Ratio:** A ratio is a comparison of two or more values where their sizes are provided in relation to each other, written in the form a:b, where for every a units of one value there are b units of the other value.
4. **Pythagorean Theorem:** A relationship between the lengths of the sides of a right triangle (i.e., a triangle with one interior angle equal to 90 degree) is represented using the equation $a^2 + b^2 = c^2$, where a and b are the lengths of the sides creating the right angle and c is length of the longest side (i.e., the hypotenuse).

Examples of skills and knowledge students are likely able to know at each achievement level in each subject are listed below:

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GRADE 12

READING

NAEP Basic

- Draw general conclusions based on concepts presented explicitly in the text.
- Make inferences that demonstrate basic understanding of literary elements, like the author's purpose.

NAEP Proficient

- Critique an author's use of descriptive or figurative language.
- Synthesize several documents and support one or more opinions using relevant evidence from the text.

NAEP Advanced

- Explain how literary elements connect to the overall purpose of a text and how they develop throughout the text.
- Synthesize information across texts to develop and support the student's own argument.

MATH

NAEP Basic

- Apply single-step percentages to solve real-world problems.
- Analyze graphs of linear functions[1] to compare rates of change or slope.[2]

NAEP Proficient

- Analyze information to solve real-world problems with proportional reasoning.[3]
- Evaluate algebraic expressions or functions.[4]

NAEP Advanced

- Solve multi-step, real-world problems using percentages.
- Apply the Pythagorean Theorem to find lengths in 3-dimensional figures.

1. **Linear Function:** A linear function represents a straight line when graphed.
2. **Slope:** Slope is the direction and steepness of a graphed line.
3. **Proportional Reasoning:** Proportional reasoning is understanding the relationship between quantities where a change in one quantity results in a proportional change in the other quantity.
4. **Expression and Function:** An expression is a combination of numbers, variables, and operations; a function is a rule between inputs and outputs.