NAEP Achievement Levels: Understanding What Students Can Do in Mathematics and Reading

The National Assessment of Educational Progress (NAEP), often referred to as the *Nation's Report Card*, provides a snapshot of how students across the United States are performing academically.

In addition to reporting scale scores (e.g., average scores on a 0-500 or 0-300 scale, depending on grade and assessment), NAEP reports student performance using three achievement levels – *NAEP Basic*, *NAEP Proficient*, and *NAEP Advanced*. These achievement levels contextualize NAEP results according to student knowledge and skills measured by each assessment.

The National Assessment Governing Board (nagb.gov) sets NAEP achievement levels, which are:

NAEP Basic: This level denotes partial mastery of prerequisite knowledge and skills that are fundamental for performance at the *NAEP Proficient* level.

NAEP Proficient*: This level represents solid academic performance for each NAEP assessment. Students reaching this level have demonstrated competency over challenging subject matter, including subject-matter knowledge, application of such knowledge to real world situations, and analytical skills appropriate to the subject matter.

NAEP Advanced: This level signifies superior performance beyond NAEP Proficient.

Each assessment's framework, or blueprint, includes achievement level descriptions (ALDs) highlighting what students at each achievement level should know and do specific to each grade and content area assessment.

In 2022, the Governing Board developed new content- and grade-specific ALDs that explain what students proved they can likely do based on actual NAEP performance. These ALDs are intended for use with reporting results and are updated over time to make sure they maintain accurate representations of student performance The ALDs are developed by educators and content experts based on a review of assessment items assigned to each achievement level. The items are assigned to an achievement level based on the likelihood that most students (67 percent) within a level can answer the item correctly.

Examples of the Mathematics and Reading ALDs for reporting for grades 4, 8, and 12 are presented below. The full set of Mathematics ALDs are available here and Reading ALDs available here. These ALDs can be used to gain insight into what it means to reach each achievement level, with examples of the skills and knowledge students can likely do at each grade level and subject.

*The NAEP Proficient level is intended to reflect solid academic performance and is not intended to match the proficiency levels set by State departments of education. Additionally, it does not signify "being on grade level."

Mathematics Achievement Level Descriptions for Reporting

Examples of what Students Performing at each NAEP Achievement Level Can Likely do in Mathematics

GRADE 4

NAEP Basic

Identify attributes of polygons as well as 3D shapes

NAEP Proficient

Demonstrate knowledge of 2D shapes by identifying, comparing, contrasting, and analyzing their attributes and describe attributes of 3D shapes with support of visual aids

NAEP Advanced

Identify and apply attributes of 2D and 3D shapes in more complex contexts and compose and decompose 2D shapes to create more complex shapes

GRADE 8

NAEP Basic

Use operations to solve real-world problems involving integers or fractions

NAEP Proficient

Perform basic operations with rational numbers to solve problems in context while applying proper units and converting between fractions, decimals, and percent

NAEP Advanced

Solve mathematical problems and problems in context with rational numbers including absolute values and variables by interpreting, creating and using diagrams

GRADE 12

NAEP Basic

Determine probabilities of simple events from 2-way tables and verbal descriptions

NAEP Proficient

Distinguish between, find, and compare experimental and theoretical probabilities

NAEP Advanced

Determine joint probabilities from 2-way tables or data sets

Reading Achievement Level Descriptions for Reporting

Examples of what Students Performing at each NAEP Achievement Level Can Likely do in Reading

GRADE 4

NAEP Basic

Determine the relevant meaning of familiar words using context within the same sentence or paragraph when reading literary texts

NAEP Proficient

Determine the meaning of words using context from multiple sections of the literary text

NAEP Advanced

Determine the meaning of nonliteral phrases when reading literary texts

GRADE 8

NAEP Basic

Demonstrate a general understanding of informational text features or graphics

NAEP Proficient

Make connections between informational text features and graphics to explain how they support the primary text

NAEP Advanced

Express an opinion that evaluates whether an informational text feature is critical to the overall understanding of the text

GRADE 12

NAEP Basic

Use context that is in close proximity to an unknown word or phrase to determine meaning when reading literary texts

NAEP Proficient

Infer the meaning of words from direct and indirect context and explain the impact of those words when reading literary texts

NAEP Advanced

Use complex strategies to navigate the literal, figurative, and implicit meaning of literary texts, including the analysis of author's choices, word choice, and language

NATIONAL ASSESSMENT GOVERNING BOARD

NAGB.GOV