



**4000-01**

**DEPARTMENT OF EDUCATION**

**Draft Mathematics Assessment Framework for the 2025 National Assessment of Educational Progress**

**AGENCY:** National Assessment Governing Board, U.S. Department of Education.

**ACTION:** Notice of opportunity for public comment for the Mathematics Assessment Framework for the 2025 National Assessment of Educational Progress (NAEP).

**SUMMARY:** The National Assessment Governing Board (Governing Board) is soliciting public comment for guidance in updating the Assessment Framework for the 2025 National Assessment of Educational Progress (NAEP) in Mathematics.

The Governing Board is authorized to formulate policy guidelines for NAEP. The NAEP legislation specifies that the Governing Board determines the content to be assessed for each NAEP Assessment. Each NAEP subject area assessment is guided by a framework that defines the scope of the domain to be measured by delineating the knowledge and skills to be tested at each grade and subject, the format of the assessment, and the achievement level definitions – guiding assessments that are valid, reliable, and reflective of widely accepted professional standards. The NAEP Mathematics Assessment Framework was last revised in 2006. It is anticipated that the current update of the NAEP Mathematics Assessment Framework will be presented for approval at the National Assessment Governing Board quarterly meeting on August 1–3, 2019.

Public and private parties and organizations are invited to provide written comments and recommendations on the draft framework. This notice sets forth the review schedule and provides information for accessing additional materials that will be useful for this review.

**DATES:** Comments must be received no later than June 7, 2019.

**ADDRESSES:** Comments should be uploaded at the following URL:

<https://www.naepframeworkupdate.org>. Comments may also be provided via email at [naepmath@wested.org](mailto:naepmath@wested.org)

**FOR FURTHER INFORMATION CONTACT:** Michelle Blair, National Assessment Governing Board, 800 North Capitol Street, NW, Suite 825, Washington, D.C., 20002-4233, Telephone: (202) 357-0396.

If you use a telecommunications device for the deaf (TDD) or a text telephone (TTY), call the Federal Relay Service (FRS), toll-free, at 1-800-877-8339.

**SUPPLEMENTARY INFORMATION:**

Assessment and Item Specifications elaborate on the framework as guidance for item development conducted by the National Center for Education Statistics (NCES) and the NAEP assessment development contractor(s). The framework development and update process also produces recommendations for contextual variables, which supports NCES' development of the questionnaires administered to students, teachers, and schools to help the public understand the achievement results in each subject. By engaging NAEP's audiences, partners, and stakeholders in the panels that provide recommendations for

NAEP frameworks and seeking public comment, NAEP frameworks reflect content valued by the public as important to measure.

All responses will be taken into consideration before finalizing the updated NAEP Mathematics Assessment Framework for Board adoption. Once adopted, the framework will be used to guide assessment development and reporting for the 2025 NAEP Mathematics Assessment.

Additional information (including the materials referenced below) can be found on the project website at <https://www.naepframeworkupdate.org>.

### **Proposed Updated Mathematics Framework for the 2025 National Assessment of Educational Progress**

The proposed revised framework can be downloaded from the framework project website at <https://www.naepframeworkupdate.org>.

### **Existing Mathematics Framework for the National Assessment of Educational Progress**

The existing framework (adopted in 2006) can be downloaded from the Governing Board website at <https://www.nagb.gov/naep-frameworks/mathematics.html>.

### **Governing Board's Periodic Review and Updating of NAEP Frameworks**

Governing Board policy articulates the Board's commitment to a comprehensive, inclusive, and deliberative process to determine and update the content and format of all NAEP assessments. For each NAEP assessment, this process results in a NAEP framework, outlining what is to be measured and how it will be measured. Periodically,

the Governing Board reviews existing NAEP frameworks to determine if changes are warranted. Each NAEP framework development and update process considers a wide set of factors, including but not limited to reviews of recent research on teaching and learning, changes in state and local standards and assessments, and the latest perspectives on the nation's future needs and desirable levels of achievement.

In 2018, the Board initiated a review of the NAEP Mathematics Framework. To inform its discussions about the extent to which the NAEP Mathematics Framework needs revisions, the Board decided it would be prudent to gather and analyze mathematics curricular standards for grades K through 8 in all 50 states, the District of Columbia, and the Department of Defense Education Activity. The Governing Board's NAEP Mathematics Framework review used this analysis of state standards along with expert commentary to determine whether a framework update was required and the type of updates that may be needed. As a result of this review, the Governing Board initiated a framework update process for the NAEP Mathematics Assessment. Learn more about the review at <https://www.nagb.gov/focus-areas/framework-development/framework-development-mathematics.html>.

### **Summary of Proposed Revisions**

Compared to the existing NAEP Mathematics Framework for the 2009 – 2017 NAEP Mathematics Assessments, the proposed updated framework reflects the following changes:

- The grade 4 version of six objectives were removed (two objectives each in Number and Operations; Geometry; and Data Analysis, Statistics, and Probability). One objective was added to grade 4 in Algebra.
- Three grade 8 objectives were edited, one was deleted in Number and Operations, and one was added in Algebra.
- Descriptions of objectives in grade 12 were edited. In Measurement, one objective was made optional, and one new optional objective was added.
- Distribution of items for each content area at grades 4 and 12 remains the same. In grade 8, the proportion of items in Data Analysis, Statistics, and Probability was increased 5% (to 20%) and for Algebra decreased by 5% (to 25%).
- A new chapter on Mathematical Practices describes and illustrates the assessment of five mathematical practices through which students engage in knowing and doing mathematics. This chapter replaces the previous chapter on Mathematical Complexity and removed the need for the subtopic of “Reasoning” (this subtopic was introduced in 2009 for Number and Operations; Geometry, Data Analysis, Statistics, and Probability; Algebra). The objectives in that subtopic have been removed.
- The two chapters on item formats and assessment design were merged into a single chapter, Overview of the Assessment Design, and updated extensively to reflect current and future digital platform use and the new item option of scenario-based tasks.

- Continuing the policy established for the 2017 digital administration of NAEP, students will have access to a calculator emulator in blocks of items designated as “calculator blocks”: four-function for grade 4, scientific for grade 8. The one change in 2025 will be that the grade 12 calculator will include a graphing emulator.

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Dated: April 22, 2019.

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