

Math Manipulatives Special Documented Accommodations Grades 3-8 Smarter Balanced Mathematics Assessment

WHAT ARE MATH MANIPULATIVES?

For some students, the math manipulatives accommodation provides access to math content and facilitates greater understanding of math skills and concepts using concrete visual and tactile materials during instruction. A variety of math manipulatives are available on the Smarter Balanced Math Assessments as a non-embedded special documented accommodation to allow eligible students to use concrete mathematical tools strategically to support their problem solving as they transition to more abstract supports.

The request for this special documented accommodation on statewide summative assessments should be aligned with IDEA guidelines with the intent to minimize access barriers while ensuring minimal impact to the test constructs, such that students can demonstrate what they know and understand, in a fair and appropriate way. Accommodations provided on state assessments are intended to remove obstacles to a student's demonstration of knowledge and skills resulting from their disability(ies) without altering the assessed construct. This attention to detail provides for accurate interpretation of test results.

WHO IS ELIGIBLE TO USE MATH MANIPULATIVES ON SMARTER BALANCED MATHEMATICS ASSESSMENTS?

Math manipulatives may be requested for students using this accommodation in daily instruction to support their access to math content and problem solving as indicated in their Individualized Education Program (IEP) or Section 504 Plan. Students eligible for this special documented accommodation are typically identified as students with visual disabilities or math-related disabilities, such as dyscalculia, and are typically students with Learning Disabilities, Autism, Visual Impairments, or Intellectual Disabilities. However, other students with documented need based on their IEP or 504 Plan may also be eligible. Without the provision of math manipulatives, eligible students would not be able to demonstrate their conceptual understanding and fluency in mathematics on the Smarter Balanced Mathematics Assessments. The following sections explain more about requesting and using math manipulatives during testing.

HOW ARE MATH MANIPULATIVES REQUESTED?

Math manipulatives may be requested for the Smarter Balanced Mathematics Assessments in one of two ways: 1) by the Individualized Education Program (IEP) or Section 504 Planning Team's determination in an IEP or 504 Plan finalized in CT-SEDS before March 1, 2023; or 2) via the District Administrator (DA) for Testing using the Special Documented Accommodation Petition Process.

In either case, the IEP or 504 Plan must contain supporting evidence, such as:

- Documentation of student need as manifested in the student's present levels of performance, mathematics goals and objectives, and in the supplementary aids and services/program accommodations section of the IEP or 504 Plan.
- Psychological assessments (if available) and/or academic performance assessments referenced in the IEP/504 Plan, showing processing disabilities related to mathematical calculations or disabilities in understanding/use of language. Skills related to listening, thinking, speaking, reading, writing, or spelling may also be reflected.

- Documented difficulties in cognition, memory, problem solving, or attention (Note: the use of math manipulatives should not be considered solely as a behavioral support, but rather an accommodation to support processing abstract concepts on the assessment).
- Progress reports or service provider assessments that provide evidence of the need and monitoring of the math manipulatives accommodation used in instruction, as well as results when the accommodation is not used.

The petition request must include 1) a description of the math manipulative(s) used regularly during instruction and those being requested for the assessment; 2) the submission of the IEP or Section 504 Plan; and 3) additional documented evidence of any math-related disability, such as a recent Educational/Psychological Evaluation and Mathematics Assessments (if applicable). To request this special documented accommodation, DAs should contact Deirdre Ducharme at the Performance Office at 860-713-6859 or at deirdre.ducharme@ct.gov. Refer to the [CSDE Assessment Guidelines](#) for more information.

*Petitions should not be submitted for students with finalized IEP or Section 504 Plans in CT-SEDS by March 1, 2023. However, **districts must ensure that the teacher who serves as test administrator follows the recommendations in this document prior to and during test administration.***

WHICH TYPES OF MATH MANIPULATIVES ARE PERMITTED?

The provision of math manipulatives on the Smarter Balanced Mathematics Assessments must be consistent with those used during instruction although manipulatives used during testing must be numberless and not include words or labels that might give students an unfair advantage. Formulas and other features that might compromise the math constructs being measured must also be removed from manipulatives prior to use on the assessment.

Examples of allowable math manipulatives include colored tiles, base ten blocks, Geoblocks, Geoboards, blocks, popsicle sticks, Unifix cubes, fraction towers, and a ten frame with no numbers or labels.

The non-embedded [100 Numbers Table](#) and the [Multiplication Table](#), accommodations for eligible students, can be downloaded and printed directly from the [Connecticut Comprehensive Assessment Program Portal](#) and disseminated prior to testing. These are considered standard accommodations and do not require a petition.

WHAT TYPE OF TEST SETTING IS REQUIRED?

Students approved for the special documented accommodation of math manipulatives on the Smarter Balanced Mathematics Assessments must be tested separately from other students who are not using math manipulatives. Students must be able to access manipulatives independently without teacher prompting or direction. Materials should be presented in an organized manner.

TESTING SECURITY TIPS

- Math manipulatives without numbers, formulas, or labels must be provided to the student in a sealed bag or bin **BEFORE** the assessment begins.
- Manipulatives must be stored at the student's workspace/testing area to minimize movement.
- The test administrator may not interact with the manipulatives once they are provided to the student.
- The test administrator may not count out/supply manipulatives to the student.
- The test administrator may not direct or prompt the student to use the math manipulatives.