

USOE Elementary Mathematics Calculator Usage

Beginning the testing year of 2013-2014, the Utah State Office of Education will implement a new assessment system, Student Assessment of Growth and Excellence (SAGE) aligned to the Utah State Core Standards. This new system is comprised of 3 components: Summative, Interim, and Formative. All items, resources, and activities are aligned to the Utah Core State Standards.

In general, technology in the mathematics standards is prominent at the high school level, less at the middle school level, and least at the elementary level. The elementary mathematics standards have a strong focus on building foundational skills and fluency in arithmetic, specifically in Grades K-5. Arithmetic is a foundational skill that requires fluency as well as building conceptual richness, which is a precursor for algebraic concepts. The standards were developed to have students develop a deeper understand of mathematics and to use a variety of strategies to come to mathematical solutions. Thus, working with numbers by hand was purposeful in the design of the standards in the formative grades. Calculation devices/aids are not appropriate to be used in Grades K-5 and only minimal in Grade 6. For students who have an IEP or 504, if teachers feel that using calculators as an instructional strategy will help their students improve their basic calculation ability, they must have that accommodation written in the IEP or 504 documentation. However, the student will still NOT be able to use the calculator during SAGE assessments for Grades 3-5, and must follow the guidelines for use in Grade 6.

USOE has developed a calculator statement that aligns to the focus of the standards in the elementary grades.

Grades 3-5: Calculator NOT allowed.

- Not available on screen
- Cannot bring in their own or one use during instruction
- Information based on the Utah State Core Standards and students in these grades need to build basic computation skills and knowledge

Grade 6: Calculator allowed on certain items.

- Available ONLY onscreen; and may be downloaded for student use in the classroom
- Cannot bring in their own or one used during instruction
- Students on an IEP or 504 can bring in a handheld calculator to use on the calculator items. They may only use it if it is noted in their IEP or 504 plan and it can ONLY be used on the items where a calculator is allowed.
- Available on items related to specific standards. Those standards are still being determined.