

Instruction

Mathematics Instruction

The Board of Education desires to offer a rigorous mathematics program that progressively develops the knowledge and skills students will need to succeed in college and career. The district's mathematics program shall be designed to teach mathematical concepts in the context of real-world situations and to help students gain a strong conceptual understanding, a high degree of procedural skill and fluency, and ability to apply mathematics to solve problems.

For each grade level, the Board of Education shall adopt academic standards for mathematics that meet or exceed the Common Core State Standards. The Superintendent or designee shall develop or select curricula that are aligned with these standards and the state curriculum framework.

The district's mathematics program shall address the following standards for mathematical practices, which are the basis for mathematics instruction and learning:

1. Overarching habits of mind of a productive mathematical thinker: Making sense of problems and persevering in solving them; attending to precision.
2. Reasoning and explaining: Reasoning abstractly and quantitatively; constructing viable arguments and critiquing the reasoning of others.
3. Modeling and using tools: Modeling with mathematics; using appropriate tools strategically.
4. Seeing structure and generalizing: Looking for and making use of structure; looking for and expressing regularity in repeated reasoning.

In addition, the program shall be aligned with grade-level standards for mathematics content.

For grades K-8, content shall address, at appropriate grade levels, counting and cardinality, operations and algebraic thinking, number and operations in base ten, fractions, measurement and data, geometry, ratios and proportional relationships, functions, expression and equations, the number system, and statistics and probability. Students shall learn the concepts and skills that prepare them for the rigor of higher mathematics.

For higher mathematics, the district shall offer a pathway of courses through which students shall be taught concepts that address number and quantity, algebra, functions, modeling, geometry, and statistics and probability.

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The Superintendent or designee shall ensure that students are appropriately placed in mathematics courses and are not required to repeat a course that they have successfully completed in an earlier grade level. Placement decisions shall be based on consistent protocols and multiple objective academic measures.

The Superintendent or designee shall ensure that certificated staff have opportunities to participate in professional development activities designed to increase their knowledge and skills in effective mathematics teaching practices.

The Superintendent or designee shall ensure that students have access to sufficient instructional materials, including manipulatives and technology, to support a balanced, standards-aligned mathematics program.

The Superintendent or designee shall provide the Board of Education with data from state and district mathematics assessments and program evaluations to enable the Board to monitor program effectiveness.

Legal Reference: Education Code, Sections 51210, 51220, 51224.5, 51224.7, 51225.3, 51284, 60605, 60605.8

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