

**MATHEMATICS INSTRUCTION**

The Board of Education desires to offer a rigorous mathematics program that provides a strong foundation in basic mathematical skills and develops knowledge and skills necessary for students to apply mathematics in college and careers. The Superintendent or designee shall develop grade-level curricula that offer a balanced instructional program, including but not limited to:

1. Basic mathematical skills: quantification, basic facts, sorting and classification, and computational skills including addition, subtraction, multiplication, division, fractions, decimals, squares and square roots
2. Conceptual understanding: knowledge and application of facts and definitions, identification of principles, understanding of relationships among mathematical concepts, recognition and application of signs, symbols and terms
3. Problem solving: use of mathematical concepts, skills, tools and reasoning strategies to formulate and solve problems in a variety of situations
4. Reasoning and Explaining: Reasoning abstractly and quantitatively; constructing viable arguments and critiquing the reasoning of others

The mathematics program shall develop such knowledge and skills in the subject areas of numbers, measurement, geometry, functions, statistics and probability, logic, algebra and discrete mathematics. Students should know, understand and demonstrate concepts through their application to classroom and real-life situations.

The Superintendent or designee shall develop or select curricula that are aligned with the state curriculum and Common Core State Standards and ensure that all students have many opportunities to take the full range of mathematics course options.

*(cf. 6011 – Academic Standards)*

*(cf. 6143 - Courses of Study)*

*(cf. 6512.1 – Placement in Mathematics Courses)*

The Board shall establish specific content and performance standards in mathematical skills, concepts and problem-solving ability for each grade level. Students at risk of failing to meet performance standards shall receive additional assistance and intervention.

The Superintendent or designee shall ensure that students are placed appropriately 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 academic measures.

*(cf. 6146.1 - High School Graduation Requirements)*

*(cf. 6152.1 – Placement in Mathematics Courses)*

**MATHEMATICS INSTRUCTION** (continued)

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.

*(cf. 4131 - Staff Development)*

Students shall have access to sufficient instructional materials, including manipulatives and technology, to support a balanced standards-aligned mathematics program.

*(cf. 1312.4 – Williams Uniform Complaint Procedures)*

*(cf. 6141 - Curriculum Development and Evaluation)*

*(cf. 6161.1 - Selection and Evaluation of Instructional Materials)*

*(cf. 6161.11 - Supplementary Instructional Materials)*

*(cf. 6162.7 - Use of Technology in Instruction)*

*Legal Reference:*

EDUCATION CODE

51210 Areas of study, grades 1 through 6

51220 Areas of study, grades 7 through 12

*Management Resources:*

CDE PUBLICATIONS

*Improving Mathematics Achievement for All California Students: The Report of the California Mathematics Task Force, 1995*

*Mathematics Framework for California Public Schools, 1992*