Policy 6142.92: Mathematics Instruction

Status: ADOPTED

Original Adopted Date: 10/01/1995 | Last Revised Date: 09/01/2024 | Last Reviewed Date: 09/01/2024

The Governing Board 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 realworld 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.

The district's mathematics program shall also incorporate recognized principles, concepts, and research-based strategies to meet the needs of all students and provide equal access to learning through lessons that are relevant to students. Instructional resources adopted for use in district schools shall provide guidance to support a diverse student population, including students who are English learners, at-promise, advanced learners, and students with learning disabilities.

For each grade level, the Board 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 district's mathematics program shall be aligned with grade-level standards for mathematics content.

For grades K-8, mathematics 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 alternative pathways of courses through which students shall be taught concepts that address number and quantity, algebra, functions, modeling, geometry, and statistics and probability. Any pathway offered by the district shall be designed in a manner that provides maximum opportunities for students to access advanced mathematics

courses during high school.

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 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 with data from state and district mathematics assessments and program evaluations to enable the Board to monitor program effectiveness.

Policy Reference Disclaimer:

These references are not intended to be part of the policy itself, nor do they indicate the basis or authority for the board to enact this policy. Instead, they are provided as additional resources for those interested in the subject matter of the policy.

State Ed. Code 51002	Description Common state curriculum
Ed. Code 51210	Course of study for grades 1-6
Ed. Code 51220	Course of study for grades 7-12
Ed. Code 51224.5	Algebra in course of study for grades 7-12
Ed. Code 51224.7	California Mathematics Placement Act of 2015
Ed. Code 51225.3	High school graduation requirements
Ed. Code 51284	Financial literacy
Ed. Code 60605	<u>State-adopted content and performance standards in</u> <u>core curricular areas</u>
Ed. Code 60605.8	Common Core standards
Management Resources California Department of Education Publication	Description 2023 Mathematics Framework for California Public Schools: Kindergarten Through Grade Twelve, June 2023
California Department of Education Publication	California Common Core State Standards: Mathematics, rev. January 2013

Common Core State Standards Initiative Publication	Appendix A: Designing High School Mathematics Courses Based on the Common Core State Standards
CSBA Publication	<u>Governing to the Core; Pathway Options for High</u> <u>School Mathematics Governance Briefs, May 2014</u>
Website	CSBA District and County Office of Education Legal Services
Website	Common Core State Standards Initiative
Website	<u>CSBA</u>
Website	California Department of Education

Cross References

Code 0440	Description District Technology Plan
0440	District Technology Plan
0460	Local Control And Accountability Plan
0460	Local Control And Accountability Plan
0500	<u>Accountability</u>
1312.2	Complaints Concerning Instructional Materials
1312.2	Complaints Concerning Instructional Materials
1312.2-E(1)	Complaints Concerning Instructional Materials
1312.4	Williams Uniform Complaint Procedures
1312.4-E(1)	Williams Uniform Complaint Procedures
1312.4-E(2)	Williams Uniform Complaint Procedures
4131	Staff Development
4331	Staff Development
5148.2	Before/After School Programs
5148.2	Before/After School Programs
6011	Academic Standards
6120	Response To Instruction And Intervention
6141	Curriculum Development And Evaluation
6141	Curriculum Development And Evaluation

6141.4	International Baccalaureate Program
6142.93	Science Instruction
6143	Courses Of Study
6143	Courses Of Study
6146.1	High School Graduation Requirements
6152.1	Placement In Mathematics Courses
6152.1	Placement In Mathematics Courses
6161.1	Selection And Evaluation Of Instructional Materials
6161.1	Selection And Evaluation Of Instructional Materials
6161.1-E(1)	Selection And Evaluation Of Instructional Materials
6161.11	Supplementary Instructional Materials
6162.5	Student Assessment
6162.51	State Academic Achievement Tests
6162.51	State Academic Achievement Tests
6163.1	Library Media Centers
6172	Gifted And Talented Student Program
6172	Gifted And Talented Student Program
6176	Weekend/Saturday Classes
6179	Supplemental Instruction
6190	Evaluation Of The Instructional Program