

Policy 6142.93: Science Instruction

Status: ADOPTED

Original Adopted Date: 10/01/1995 | **Last Revised Date:** 03/01/2025
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The Governing Board believes that science education should focus on giving students an understanding of the biological and physical aspects of science, including the place of humans in ecological systems, the causes and effects of climate change and the methods to mitigate and adapt to climate change, key scientific concepts, and methods of scientific inquiry and investigation through experiments and other activities that foster critical thinking. Students should become familiar with the natural world and the interrelationship of science, mathematics, technology, and engineering. As part of science instruction, students should learn how to apply scientific knowledge and reasoning.

Philosophical and religious theories that are based, at least in part, on faith and are not subject to scientific test and refutation shall not be discussed during science instruction.

The Board shall adopt academic standards for science that meet or exceed the California Next Generation Science Standards (CA-NGSS) and describe the knowledge and skills students are expected to possess at each grade level, with an instructional focus on understanding the process of science, the fundamental ideas within each discipline of science, and underlying themes that are common to all sciences. The Superintendent or designee shall ensure that curricula used in district schools are aligned with these standards and the state curriculum framework.

The Superintendent or designee shall ensure that students have access to and are enrolled in a broad course of study including science courses.

The Superintendent or designee shall provide certificated staff with opportunities to participate in professional development activities designed to enhance their knowledge of district-adopted academic standards, instructional strategies for teaching science, and changes in scientific theories.

The Superintendent or designee shall develop and implement appropriate safety measures for science laboratory classes in accordance with Administrative Regulation 5142 - Safety, including, but not limited to, staff and student safety training, use of eye safety devices, hearing protection, first aid procedures, regular equipment maintenance, safe use of heat sources, safe use and disposal of hazardous chemicals, proper ventilation, prevention of exposure to bloodborne pathogens from sharp instruments, fire prevention and control, an emergency response plan, and evacuation procedures. Parents/guardians shall be informed of the types of science laboratory activities that will be conducted and encouraged to sign consent forms for their child's

participation.

The Superintendent or designee shall regularly report to the Board regarding the implementation and effectiveness of the science curriculum at each grade level. At a minimum, each report shall address the extent to which the program is aligned with the CA-NGSS, any applicable student assessment results, and feedback from students, parents/guardians, and staff regarding the program.

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 Governing Board to enact this policy. Instead, they are provided as additional resources for those interested in the subject matter of the policy.

State	Description
5 CCR 14030	Preliminary procedure, planning and approval of school facilities
8 CCR 5191	Chemical hygiene plan
Ed. Code 32030-32034	Eye safety
Ed. Code 32255-32255.6	Student's right to refrain from harmful or destructive use of animals
Ed. Code 33475-33475.5	Model curriculum on stem cell science
Ed. Code 33548	Media and artificial intelligence literacy
Ed. Code 49340-49341	Hazardous substances education
Ed. Code 51210	Course of study for grades 1-6
Ed. Code 51210.3	Elementary science coach
Ed. Code 51220	Course of study for grades 7-12
Ed. Code 51225.3	High school graduation requirements
Ed. Code 52059.5-52077	Local control and accountability plan
Ed. Code 60640-60648.5	California Assessment of Student Performance and Progress
Ed. Code 8774	Residential outdoor science program
Management Resources	Description
California Department of Education Publication	Science Safety Handbook for California Public Schools, 2014
California Department of Education Publication	Science Framework for California Public Schools: Kindergarten Through Grade 12, 2016
California Department of Education Publication	California Next Generation Science Standards, 2013
CSBA Publication	Supporting STEM Access, Equity, and Effectiveness: Equitable

	Access to Rigorous STEAM Coursework, October 2018
CSBA Publication	Supporting STEM Access, Equity, and Effectiveness: The Path to Full Implementation of the California Next Generation Science Standards, October 2018
CSBA Publication	Supporting STEM Access, Equity, and Effectiveness: Professional Learning is Essential to Next Generation Science Standards Implementation, October 2020
CSBA Publication	Supporting Implementation of the California Next Generation Science Standards (CA-NGSS), Governance Brief, November 2016
Website	Los Angeles County Office of Education, Introduction to Strategic Science Teaching (SST)
Website	Strategic Science Teaching, Grades K-12: A Sampler of Science Lessons Connecting Literature with the California Standards
Website	CSBA District and County Office of Education Legal Services
Website	U.S. Department of Education, STEM Education
Website	California Alliance for Next Generation Science Standards
Website	California Science Teachers Association
Website	CSBA
Website	California Department of Education

Cross References

Code	Description
0440	District Technology Plan
0440	District Technology Plan
0460	Local Control And Accountability Plan
0460	Local Control And Accountability Plan
0500	Accountability
3511	Energy And Water Management
3511	Energy And Water Management
3511.1	Integrated Waste Management
3511.1	Integrated Waste Management
3514.1	Hazardous Substances

3514.1	Hazardous Substances
4119.42	Exposure Control Plan For Bloodborne Pathogens
4119.42	Exposure Control Plan For Bloodborne Pathogens
4119.42	Exposure Control Plan For Bloodborne Pathogens
4131	Staff Development
4157	Employee Safety
4157	Employee Safety
4219.42	Exposure Control Plan For Bloodborne Pathogens
4219.42	Exposure Control Plan For Bloodborne Pathogens
4219.42	Exposure Control Plan For Bloodborne Pathogens
4257	Employee Safety
4257	Employee Safety
4319.42	Exposure Control Plan For Bloodborne Pathogens
4319.42	Exposure Control Plan For Bloodborne Pathogens
4319.42	Exposure Control Plan For Bloodborne Pathogens
4331	Staff Development
4357	Employee Safety
4357	Employee Safety
5141.22	Infectious Diseases
5141.22	Infectious Diseases
5142	Safety
5142	Safety
5145.8	Refusal To Harm Or Destroy Animals
5148.2	Before/After School Programs
5148.2	Before/After School Programs
6011	Academic Standards
6141	Curriculum Development And Evaluation
6141	Curriculum Development And Evaluation
6141.2	Recognition Of Religious Beliefs And Customs
6141.2	Recognition Of Religious Beliefs And Customs
6141.4	International Baccalaureate Program

6142.1	Sexual Health And HIV/AIDS Prevention Instruction
6142.1	Sexual Health And HIV/AIDS Prevention Instruction
6142.5	Environmental Education
6142.92	Mathematics Instruction
6143	Courses Of Study
6143	Courses Of Study
6146.1	High School Graduation Requirements
6161.1	Selection And Evaluation Of Instructional Materials
6161.1	Selection And Evaluation Of Instructional Materials
6161.1	Selection And Evaluation Of Instructional Materials
6161.11	Supplementary Instructional Materials
6162.51	State Academic Achievement Tests
6162.51	State Academic Achievement Tests
6172	Gifted And Talented Student Program
6172	Gifted And Talented Student Program
6179	Supplemental Instruction