

FOLSOM CORDOVA UNIFIED SCHOOL DISTRICT



Physical Science 1000

Board Approval Date: May 15, 2025	Course Length: 2 Semesters
Grading: Pass/Fail	Credits: 5 Credits per Semester
Proposed Grade Level(s): 9, 10, 11, 12	Subject Area: Other Science Elective Area (if applicable):
Prerequisite(s): Placement in this course requires recommendation of an IEP; students qualify to take the alternative state assessment	Corequisite(s):
CTE Sector/Pathway: N/A	
Intent to Pursue 'A-G' College Prep Status: No	
A-G Course Identifier: N/A	
Graduation Requirement: Yes	
Course Intent: N/A Program (if applicable): N/A	
Folsom Cordova Unified School District 2024-2025 Nondiscrimination Statement The Folsom Cordova Unified School District prohibits discrimination, intimidation, harassment (including sexual harassment) or bullying based on a person's actual or perceived ancestry, color, disability, gender, gender identity, gender expression, immigration status, nationality, race or ethnicity, religion, sex, sexual orientation, or association with a person or a group with one or more of these actual or perceived characteristics. For questions or complaints, contact: Jim Huber, Ed.D., Assistant Superintendent, Educational Services Compliance Officer, Section 504 Coordinator, ADA Coordinator (students) jhuber@fcusd.org 916-294-9000 x 104580	

**Shannon Diaz, Director of Compliance
Compliance Officer and Title IX Coordinator
sdiaz@fcusd.org
916-294-9000 x 104415
1965 Birkmont Drive
Rancho Cordova, CA 95742**

The Folsom Cordova Unified School District does not discriminate on the basis of sex and prohibits sex discrimination in any education program or activity that it operates, as required by Title IX and its regulations, including in admission and employment.

Inquiries about Title IX may be referred to the Folsom Cordova Unified School District's Title IX Coordinator, the U.S. Department of Education's Office for Civil Rights, or both. The District Title IX Coordinator is:

**Shannon Diaz, Director of Compliance
Compliance Officer and Title IX Coordinator
sdiaz@fcusd.org
916-294-9000 x 104415
1965 Birkmont Drive
Rancho Cordova, CA 95742**

The District's nondiscrimination policy can be located at:

<https://www.fcusd.org/district/about-us/nondiscrimination-statementpolicy>

The District's nondiscrimination complaint procedures can be located at:

Students: <https://www.fcusd.org/departments/compliance/complaints/uniform-complaints>

Staff: <https://www.fcusd.org/departments/compliance/complaints/nondiscrimination-in-employment>

To report information about conduct that may constitute sex discrimination or sex-based harassment, or make a complaint of sex discrimination or sex-based harassment under Title IX, please refer to:

Students: <https://www.fcusd.org/district/about-us/title-ix-notificationsexual-harassment>

Staff: <https://www.fcusd.org/departments/compliance/complaints/sexual-harrassment-title-ix>

COURSE DESCRIPTION:

The High School Physical Science Learning Pathway offers an engaging introduction to the fundamental principles of discipline. It provides students with a foundation in key concepts, including the scientific method, properties of matter, physical and chemical changes in matter, and energy. Students also gain exposure to concepts such as mechanical energy, the motion of objects, forces, and waves. Through engaging texts, experiments, and activities, students will explore practical applications of physical science and its applications in the real world.

DETAILED UNITS OF INSTRUCTION:

Unit Number/Title	Unit Essential Questions	Examples of Formative Assessments	Examples of Summative Assessment
1. Introduction to Physical Science	What is science? What is the scientific method? What are chemistry and physics?	*What Is Science? *Reading Comprehension *High School Science Fair *What Is Physical Science? *Reading Comprehension	*Unit assessment
NGSS Science and Engineering Practices			
2. Properties of Matter	How do we describe the smallest pieces of matter? What are chemical bonds? What are the properties of different types of elements?	*Studying Elements: Metals *Elements All Around Us: Fluorine and Iron	*Unit assessment
HS-PS1-1. Use the periodic table as a model to predict the relative properties of elements based on the patterns of electrons in the outermost energy level of atoms.			
3. Changes in Matter	How do we know when chemical reactions happen? What causes water to change into ice or steam?	*Solid, Liquid, Gas: Which Keeps Its Shape *Physical Changes: Cut, Tear, Melt, Freeze	*Unit assessment
HS-PS1-2. Construct and revise an explanation for the outcome of a simple chemical reaction based on the outermost electron states of atoms, trends in the periodic table, and knowledge of the patterns of chemical properties.			
4. Atomic Energy	Does mass change during a chemical reaction? What happens to the center of atoms in nuclear reactions?	*Physical and Chemical Change: Making Fudge	*Unit assessment
HS-PS1-7. Use mathematical representations to support the claim that atoms, and therefore mass, are conserved during a chemical reaction. HS-PS1-8. Develop models to illustrate the changes in the composition of the nucleus of the atom and the energy released during the processes of fission, fusion, and radioactive decay.			
5. Mechanical	How do objects move?	*How Do We Get Things	*Unit assessment

Energy	What is the energy of moving objects?	Moving?	
HS-PS3-1. Create a computational model to calculate the change in the energy of one component in a system when the change in energy of the other component(s) and energy flows in and out of the system are known.			
6. Objects in Motion	How do we describe motion and changes to motion?	*Exploring Speed, Distance and Time	*Unit assessment
HS-PS2-2. Use mathematical representations to support the claim that the total momentum of a system of objects is conserved when there is no net force on the system.			
7. Forces	What is a force? How do forces work in the world around us?	*Motion Needs Force First Law of Motion: Apply It to Bowling	*Unit assessment
HS-PS2-1. Analyze data to support the claim that Newton's second law of motion describes the mathematical relationship among the net force on a macroscopic object, its mass, and its acceleration.			
8. Waves	What are waves? How do waves transmit information? What causes changes in waves?	*How Sound Waves Travel Using Energy From Wind to Make Electricity	*Unit assessment
HS-PS4-1. Use mathematical representations to support a claim regarding relationships among the frequency, wavelength, and speed of waves traveling in various media.			

RELEVANT STANDARDS AND FRAMEWORKS, CONTENT/PROGRAM SPECIFIC STANDARDS:

Link to Common Core Standards (if applicable):

Educational standards describe what students should know and be able to do in each subject in each grade. In California, the State Board of Education decides on the standards for all students, from kindergarten through high school.

<http://www.corestandards.org/ELA-Literacy/RST/11->

[12/https://www.cde.ca.gov/be/st/ss/documents/ccssmathstandardaug2013.pdf](https://www.cde.ca.gov/be/st/ss/documents/ccssmathstandardaug2013.pdf)

Link to Framework (if applicable):

Curriculum frameworks provide guidance for implementing the content standards adopted by the State Board of Education (SBE). Frameworks are developed by the Instructional Quality Commission, formerly known as the Curriculum Development and Supplemental Materials Commission, which also reviews and recommends textbooks and other instructional materials to be adopted by the SBE.

<https://www.cde.ca.gov/ci/sc/cf/documents/scifwchapter7.pdf>

Link to Subject Area Content Standards (if applicable):

Content standards were designed to encourage the highest achievement of every student, by defining the knowledge, concepts, and skills that students should acquire at each grade level.

[https://www.nextgenscience.org/search-](https://www.nextgenscience.org/search-standards?keys=&tid%5B%5D=107&tid_3%5B%5D=96&tid_3%5B%5D=94)

[standards?keys=&tid%5B%5D=107&tid_3%5B%5D=96&tid_3%5B%5D=94](https://www.nextgenscience.org/search-standards?keys=&tid%5B%5D=107&tid_3%5B%5D=96&tid_3%5B%5D=94)

Link to Program Content Area Standards (if applicable):

Program Content Area Standards apply to programs such as International Baccalaureate, Advanced Placement, Career and Technical Education, etc.

<https://www.cde.ca.gov/ta/tg/ca/caascienceitemspecs.asp>

TEXTBOOKS AND RESOURCE MATERIALS:**Textbooks**

Board Approved	Pilot Completion Date (If applicable)	Textbook Title	Author(s)	Publisher	Edition	Date
<i>Yes</i>		<i>Unique Learning System</i>	Various	n2y	Online	