FOLSOM CORDOVA UNIFIED SCHOOL DISTRICT

Biology 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: Biology** **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 Biology Pathway is designed to introduce students to fundamental biological concepts through engaging, hands-on, differentiated instruction. Learners experience an introduction to biology, explore ecology, gain an understanding of cells and organs, and investigate photosynthesis and cellular respiration. They then gain exposure to cell division and genetics, evolution, and classification systems. Through this Pathway, students explore living organisms and their interactions with the environment.

DETAILED UNITS OF INSTRUCTION:

Unit Number/Title	Unit Essential Questions	Examples of Formative Assessments	Examples of Summative Assessment
1. Introduction to Biology	What is science? What is the scientific method? What are the characteristics of living things?	*Defining Vocabulary, *Studying Life Living and Nonliving	*Unit assessment
NGSS Science and Engineering Practices			
2. Ecology	Why do we eat? How are plants and animals organized in a food web? How is climate different than weather? Why do species go extinct?	*Healthy Hygiene, Healthy Me *Exploring the Food Chain Herbivores, Carnivores, Omnivores *Weaving a Food Chain Activity	*Unit assessment
HS-LS2-4. Use mathematical representations to support claims for the cycling of matter and flow of energy among organisms in an ecosystem.			
3. Structure of Life	What is a cell? What are different types of cells and how do they work? How does the structure of cells help them function? How do cells work in different organ systems?	*Cells Make Up Living Things *Body Systems: Respiratory	*Unit assessment
HS-LS1-2. Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.			
4. Photosynthesis and Cell Respiration	How do plants make food? How do our bodies use food for energy?	*Plants Make Their Own Food Activity *Photosynthesis: Plants Need Air, Water and the Sun *Eating Right Gives Us Energy	*Unit assessment
HS-LS1-5. Use a model to illustrate how photosynthesis transforms light energy into stored chemical energy. **HS-LS1-7. Use a model to illustrate that cellular respiration is a chemical process whereby the bonds of**			

food molecules and oxygen molecules are broken and the bonds in new compounds are formed resulting in a net transfer of energy.			
5. Cell Division and Genetics	How does our body make new cells? What determines our traits? How are traits passed down from parents to offspring?	*We All Have DNA *Plants: Life Cycle and Reproduction *Humans Grow, So Do Animals	*Unit assessment
HS-LS1-4. Use a model to illustrate the role of cellular division (mitosis) and differentiation in producing and maintaining complex organisms. **HS-LS3-1. Ask questions to clarify relationships about the role of DNA and chromosomes in coding the instructions for characteristic traits passed from parents to offspring.**			
6. Evolution	How do populations change over time? Where do species of living things come from?	*Coniferous Trees Adapt to Snowfall *Effects of Floods and *Droughts on Plants and Animals *Dinosaur Fossils	*Unit assessment
HS-LS4-1. Communicate scientific information that common ancestry and biological evolution are supported by multiple lines of empirical evidence. **HS-LS4-2. Construct an explanation based on evidence that the process of evolution primarily results from four factors: (1) the potential for a species to increase in number, (2) the heritable genetic variation of individuals in a species due to mutation and sexual reproduction, (3) competition for limited resources, and (4) the proliferation of those organisms that are better able to survive and reproduce in the environment.**			
7. Introduction to Classification	How do we group organisms?	*Taxonomy *Kingdoms and Domains *Kingdoms Plantae and *Animalia *Plants: Life Cycle and *Reproduction The Tea Plant Reproduces	*Unit assessment
HS-LS4-1. Communicate scientific information that common ancestry and biological evolution are supported by multiple lines of empirical evidence.			
8. The Six Kingdoms	What are viruses? Are viruses alive?	*Bacteria vs. Virus	*Unit assessment
HS-LS1-2. Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.			

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

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-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
Yes		*Unique Learning System*	Various	n2y	Online	