

Brief Course Description:

This laboratory science course elective is aligned to the Next Generation Science Standards for California Public Schools, and is designed to introduce students to the principles and concepts of Earth and Space Science, as well as prepare them for additional coursework in the Earth and Space sciences. Concepts discussed include the origins of and objects in the universe, history of the Earth, Earth's structure and processes such as weathering, erosion, and plate tectonics, weather, climate, and human impact on the Earth. Students also conduct a variety of laboratory activities that develop skills in observation, use of scientific tools and techniques, data collection and analysis, and mathematical applications.

All Davis School for Independent Study (DSIS) courses are the same rigor, educational quality, and intellectual challenge substantially equivalent to in-person instruction and equivalent classroom-based courses, and shall be aligned to all relevant local and state content standards. The courses taken through DSIS Virtual Academy are facilitated in an entirely virtual format. Courses are facilitated generally asynchronously, with opportunities for live/synchronous courses and small group interactions as well as 1-on-1 teacher-student meetings. Assessments are done through Edgenuity courses where credentialed teachers review and assess student learning. DSIS Virtual students also participate in district-wide assessments such as CAASPP and i-Ready.

Context for Course:

List the State/District Standards addressed in this course. This course adheres to the California Science Content Standards (NGSS) and Framework.

History of Course Development:

This is an updated course outline written as the result of the addition of the Virtual Academy.

FAIR Act Inclusion (“...a study of the role and contributions of both men and women, Native Americans, African Americans, Mexican Americans, Asian Americans, Pacific Islanders, European Americans, lesbian, gay, bisexual, and transgender Americans, persons with disabilities, and members of other ethnic and cultural groups, to the economic, political, and social development of California and the United States of America, with particular emphasis on portraying the role of these groups in contemporary society.”): This course adheres to the FAIR Act through the study of innovators and their scientific discoveries that have contributed to the study of earth and space science.

COURSE GOALS AND/OR MAJOR STUDENT OUTCOMES

This course is designed to introduce students to the principles and concepts of Earth and Space Science as well as prepare them for additional coursework in Earth and Space Science.

COURSE OBJECTIVES

- Describe the formation, identification, and utilization of rocks and minerals
- Explain methods for measuring geological time
- Describe the landforms found on Earth and the factors that have caused them to change over time
- Discuss the importance, availability, and use of Earth's water supply
- Describe the use and conservation of resources
- Explain the impact of weather and climate on various regions of the earth
- Relate Earth to larger systems like the solar system, galaxies, and the universe

COURSE OUTLINE

- Objects in the Universe: Part 1
- Objects in the Universe: Part 2
- History of the Earth: Part 1
- History of the Earth: Part 2
- Earth's Structure and Plate Tectonics: Part 1
- Earth's Structure and Plate Tectonics: Part 2

- Weathering
- Erosion
- Earth's Hydrosphere: Part 1
- Earth's Hydrosphere: Part 2
- Matter in the Biosphere
- Earth's Systems: Part 1
- Earth's Systems: Part 2
- Weather
- Climate
- Earth's Resources: Part 1
- Earth's Resources: Part 2
- Humans and the Environment: Part 1
- Humans and the Environment: Part 2
- Humans and the Environment: Part 3

TEXTS AND SUPPLEMENTAL INSTRUCTIONAL MATERIALS

Edgenuity Online Curriculum

Previously Adopted? No (If no, provide information directly below)

Cost per book

Total Cost

Budget Source:

Other:

All materials are contained within the Edgenuity Online Platform

DIFFERENTIATED INSTRUCTIONAL METHODS AND/OR STRATEGIES

- This course will be delivered online
- Interactive lessons that include a mixture of instructional videos and tasks
- Assignments in which you apply and extend learning in each lesson
- Assessments, including quizzes, tests, and cumulative exams

ASSESSMENT METHODS AND/OR TOOLS

- Assignments
- Labs
- Lesson Quizzes
- Unit Tests
- Cumulative Exams

ASSESSMENT CRITERIA

Students will be assessed based on their work on assignments, labs, lesson quizzes, unit tests, cumulative exams and projects.

HONORS COURSES ONLY

Indicate how this honors course is different from the standard course.

