

# Earth and Space Science

## Course Overview and Syllabus

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**Course Number:** SC1113HSMI

**Grade level:** 9-12

**Prerequisite Courses:** None

**Credits:** 1.0

### Course Description

Students enrolled in this rigorous course will expand on the knowledge and skills developed in middle school to explain more in-depth phenomena central to the earth and space sciences and to their daily lives. Students will gain an understanding of the universe and explore other topics such as Earth's history, structure, weather, biosphere, hydrosphere, atmosphere, resources, and the impact humans have on Earth's resources. The course includes interactive real-world examples throughout the lessons and application projects, as well as interactive lab simulations and in-school, hands-on lab options. Earth and Space Science is a two-semester course that will provide a solid foundation for understanding the physical characteristics that make the planet Earth unique and will examine how these characteristics differ among the planets of our solar system.

### Course Objectives

Throughout the course, you will meet the following goals:

- 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

### Student Expectations

This course requires the same level of commitment from you as a traditional classroom course would. Throughout the course, you are expected to spend approximately 5–7 hours per week online on the following activities:

- 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

## Communication

Your teacher will communicate with you regularly through discussions, email, chat, and system announcements. You will also communicate with classmates, either via online tools or face to face, as you collaborate on project, ask and answer questions in your peer group, and develop speaking and listening skills.

## Grading Policy

You will be graded on the work you do online and the work you submit electronically to your teacher. The weighting for each category of graded activity is listed below.

Grading Category	Weight
Assignments	10%
Labs	0%
Lesson Quizzes	20%
Unit Tests	50%
Cumulative Exams	20%
Additional	0%

## Scope and Sequence

When you log into the Virtual Classroom, you can view the entire course map, which provides a scope and sequence of all topics you will study. Clicking a lesson's link in the course map leads to a page listing instructional activities, assignments, and learning objectives specific to that lesson. The units of study are summarized below:

- Unit 1:** Understanding the Universe
- Unit 2:** History of the Earth
- Unit 3:** Earth's Structure and Plate Tectonics
- Unit 4:** Weathering Erosion
- Unit 5:** Earth's Biosphere
- Unit 6:** Earth's Hydrosphere: Part 1
- Unit 7:** Earth's Hydrosphere: Part 2
- Unit 8:** Earth's Atmosphere
- Unit 9:** Natural Resources