

Middle School Earth and Space Science delivers instruction, practice, and review to help students develop scientific literacy, deepen conceptual understanding, and apply scientific practices. Students explore concepts including Earth's systems, engineering design, the nature of the universe, and the interaction between humans and the environment.

The two-semester course is arranged in themed units, each with two to three lessons. In each unit, activities make complex ideas accessible to students as they discover the nature of science through focused content, interactive mini-investigations, multi-modal representations, and personalized feedback. Each lesson includes a variety of activities such as direct instruction, application of skills, performance tasks, and formative and summative assessments. Students engage with the subject matter in an interactive, feedback-rich environment as they progress through standards-aligned content and demonstrate their learning through computer- and teacher-scored assignments.

This course is built to state standards.

Length: Two semesters

## UNIT 1: NATURE OF SCIENCE

- Lesson 1: What Is Science?
- Lesson 2: Types of Investigations
- Lesson 3: Using Models
- Lesson 4: Wrap-Up: Nature of Science

## UNIT 2: MEASUREMENT AND DATA

- Lesson 1: Tools and Measurement
- Lesson 2: Displaying and Interpreting Data
- Lesson 3: Wrap-Up: Measurement and Data

## UNIT 3: PLANET EARTH

- Lesson 1: Models of Earth
- Lesson 2: Earth's Structure and Cycles
- Lesson 3: Wrap-Up: Planet Earth

## UNIT 4: THE GEOSPHERE

- Lesson 1: Minerals
- Lesson 2: The Rock Cycle
- Lesson 3: Soil
- Lesson 4: Wrap-Up: The Geosphere

## UNIT 5: OUR CHANGING PLANET

- Lesson 1: Deforming Earth's Crust
- Lesson 2: Weathering and Erosion
- Lesson 3: Geologic Time
- Lesson 4: Wrap-Up: Our Changing Planet

## UNIT 6: EARTH'S PLATES

- Lesson 1: Plate Tectonics
- Lesson 2: Earthquakes and Volcanoes
- Lesson 3: Wrap-Up: Earth's Plates

## UNIT 7: SEMESTER WRAP-UP

- Lesson 1: Semester Wrap-Up

## **UNIT 8: THE ATMOSPHERE, HYDROSPHERE, AND CRYOSPHERE**

- Lesson 1: Freshwater and Ice
- Lesson 2: Oceans
- Lesson 3: The Atmosphere
- Lesson 4: Wrap-Up: The Atmosphere, Hydrosphere, and Cryosphere

## **UNIT 9: WEATHER AND CLIMATE**

- Lesson 1: Weather
- Lesson 2: Severe Weather
- Lesson 3: Climate
- Lesson 4: Wrap-Up: Weather and Climate

## **UNIT 10: HUMANS AND EARTH'S RESOURCES**

- Lesson 1: Natural Resources
- Lesson 2: Impacts of Humans
- Lesson 3: Wrap-Up: Humans and Earth's Resources

## **UNIT 11: THE SOLAR SYSTEM**

- Lesson 1: Sun-Earth-Moon System
- Lesson 2: Our Solar System
- Lesson 3: Wrap-Up: The Solar System

## **UNIT 12: EXPLORING THE UNIVERSE**

- Lesson 1: The Universe
- Lesson 2: Our Sun and Other Stars
- Lesson 3: Space Exploration
- Lesson 4: Wrap-Up: Exploring the Universe

## **UNIT 13: SEMESTER WRAP-UP**

- Lesson 1: Semester Wrap-Up