

Middle School Grade 7 Science delivers instruction, practice, and review to help students develop scientific literacy, deepen conceptual understanding, and apply scientific practices. Students explore concepts such as the structures and properties of matter; chemical reactions; the flow of energy through systems, including Earth's living and nonliving systems; and the history of Earth.

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: NATURE OF MATTER

- Lesson 1: What Is Matter?
- Lesson 2: Atomic Structure
- Lesson 3: The Periodic Table
- Lesson 4: Wrap-Up: Nature of Matter

### UNIT 4: DESCRIBING MATTER

- Lesson 1: Properties of Matter
- Lesson 2: Solids, Liquids, and Gases
- Lesson 3: Mixtures of Matter
- Lesson 4: Wrap-Up: Describing Matter

### UNIT 5: CHANGES IN MATTER

- Lesson 1: Physical and Chemical Changes
- Lesson 2: Changes of State
- Lesson 3: Chemical Equations
- Lesson 4: Wrap-Up: Changes in Matter

### UNIT 6: SEMESTER WRAP-UP

- Lesson 1: Semester Wrap-Up

## **UNIT 7: PLANET EARTH**

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

## **UNIT 8: THE GEOSPHERE**

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

## **UNIT 9: 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 10: EARTH'S PLATES**

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

## **UNIT 11: LIFE ON EARTH**

- Lesson 1: Chemistry of Life
- Lesson 2: Cell Nutrition and Transport
- Lesson 3: Wrap-Up: Life on Earth

## **UNIT 12: ECOLOGY**

- Lesson 1: Characteristics of Ecosystems
- Lesson 2: Interactions in Ecosystems
- Lesson 3: Succession and Ecosystem Stability
- Lesson 4: Wrap-Up: Ecology

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

- Lesson 1: Semester Wrap-Up