

M/J Earth/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: Science and Engineering

- Introduction to Science
- Scientific Investigations
- What Is Engineering?
- Wrap-Up: Science and Engineering

### Unit 2: Tools of Inquiry

- Using Models
- Measurement and Tools
- Interpreting and Displaying Data
- Wrap-Up: Tools of Inquiry

### Unit 3: Forces and Planet Earth

- Earth's Structure and Cycles
- The Rock Cycle
- Weathering, Erosion, and Deposition
- Wrap-Up: Forces and Planet Earth

### Unit 4: Our Changing Planet

- Deforming Earth's Crust
- Geologic Time
- Wrap-Up: Our Changing Planet

### Unit 5: Earth's Plates

- Plate Tectonics

- Earthquakes and Volcanoes
- Wrap-Up: Earth's Plates

### **Unit 6: Semester Wrap-Up**

### **Unit 7: Energy and Earth's Systems**

- Freshwater
- Oceans
- Earth's Atmosphere
- Wrap-Up: Energy and Earth's Systems

### **Unit 8: Weather and Climate**

- Weather
- Severe Weather Events
- Earth's Climate
- Wrap-Up: Weather and Climate

### **Unit 9: Humans and Earth's Resources**

- Natural Resources
- Humans' Impact on Earth
- Wrap-Up: Humans and Earth's Resources

### **Unit 10: Forces in the Solar System**

- The Earth-Sun-Moon System
- The Solar System
- Wrap-Up: Forces in the Solar System

### **Unit 11: Exploring the Universe**

- The Universe
- The Sun and Other Stars
- Exploring Space
- Wrap-Up: Exploring the Universe

### **Unit 12: Semester Wrap-Up**