

Middle School Grade 6 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 flow of energy and matter through both living and nonliving systems, including Earth's systems; Earth's weather and climate; the interaction between humans and the environment; the relationship between structure and function; and growth, development, and reproduction in organisms.

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.

Length: Two Semesters

### **Unit 1: Science and Engineering**

- What Is Science?
- Types of Investigations
- What Is Engineering?
- Wrap-Up: Science and Engineering

### **Unit 2: Tools of Inquiry**

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

### **Unit 3: Energy**

- Describing Energy
- Energy Transfer and Transformation
- Wrap-Up: Energy

### **Unit 4: Thermal Energy and Heat**

- Thermal Energy and Temperature
- Heat and Thermal Energy
- Energy Transfer and Technology
- Wrap-Up: Thermal Energy and Heat

### **Unit 5: Life on Earth**

- Characteristics of Life

- Domains and Kingdoms of Life
- Patterns of Reproduction
- Wrap-Up: Life on Earth

### **Unit 6: Cells**

- Cell Structure
- Cell Nutrition and Transport
- Wrap-Up: Cells

### **Unit 7: Semester Wrap-Up**

#### **Unit 8: Multicellular Bodies**

- Specialized Cells and Tissues
- Organs and Organ Systems
- Wrap-Up: Multicellular Bodies

#### **Unit 9: The Human Body**

- Human Organ Systems
- Disease and Human Health
- Wrap-Up: The Human Body

#### **Unit 10: Response to Stimuli**

- Animal Behaviors
- Plant Responses
- Wrap-Up: Response to Stimuli

#### **Unit 11: Thermal Energy and Earth Systems**

- Freshwater and Ice
- Oceans
- The Atmosphere
- Wrap-Up: Thermal Energy and Earth Systems

#### **Unit 12: Weather and Climate**

- Weather
- Severe Weather
- Climate
- Wrap-Up: Weather and Climate

#### **Unit 13: Humans and Earth's Resources**

- Natural Resources
- Impacts of Humans
- Wrap-Up: Humans and Earth's Resources

#### **Unit 14: Semester Wrap-up**