

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: 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: Nature of Life

- Characteristics of Life
- Chemistry of Life
- Wrap-Up: Nature of Life

Unit 4: Cells

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

Unit 5: Genetics

- Inheritance
- Genes and DNA

- Biotechnology
- Wrap-Up: Genetics

Unit 6: Diversity of Life

- Domains and Kingdoms of Life
- Classification of Living Things
- Wrap-Up: Diversity of Life

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: Reproduction and Development

- Patterns of Reproduction
- Life Cycles
- Wrap-Up: Reproduction and Development

Unit 11: Response to Stimuli

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

Unit 12: Ecology

- Characteristics of Ecosystems
- Interactions in Ecosystems
- Succession and Ecosystem Stability
- Wrap-Up: Ecology

Unit 13: Evolution

- Theory of Evolution
- Natural Selection
- Wrap-Up: Evolution

Unit 14: Semester Wrap-Up