

California Middle School Life Science delivers instruction, practice, and review to help students develop scientific literacy, deepen conceptual understanding, and apply scientific practices. Students explore concepts including the relationship between structure and function, the flow of energy and matter through living systems, heredity, and the diversity of life.

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 Next Generation Science Standards for life science.

Length: Two Semesters

Unit 1: Nature of Science

- What Is Science?
- Types of Investigations
- Using Models
- Wrap-Up: Nature of Science

Unit 2: Measurement and Data

- Tools and Measurement
- Displaying and Interpreting Data
- Wrap-Up: Measurement and Data

Unit 3: Nature of Life

- Characteristics of Life
- Chemistry of Life
- Patterns of Reproduction
- 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: Semester Wrap-Up

Unit 7: Diversity of Life

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

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: Ecology

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

Unit 12: Evolution

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

Unit 13: Semester Wrap-Up