



SCIENCE 6

SCI106 — 1.0 Credit

Middle School Course

Course Description

The sixth-grade science course will introduce students to a variety of science topics, skills, and ideas. Students will have the opportunity to explore several different scientific fields through research, experimentation, and interactive activities. Throughout the course, students will use the scientific method and understand that the scientific method applies to all scientific disciplines and endeavors.

Course Objectives

After completing the course, students will be able to:

- Plan and implement an investigation using the scientific method.
- Collect, display, and interpret data from a scientific investigation.
- Identify and describe the relationship between force and motion.
- Identify chemical and physical properties and classify matter based on these properties.
- Understand and describe the relationship between matter and energy.
- Explain the origin and path of energy and its importance to all life on earth.
- Understand that traits are inherited and that traits can change over time.
- Understand that organisms respond to external stimuli and identify these responses.
- Know and identify the basic structure and components of the solar system, the earth's atmosphere, and the earth's surface.

Course Length

Two semesters

Required Text

None

Course Outline

Introduction to the Scientific Method

- Scientific Method Steps
- Collecting, Reporting, and Analyzing Data
- Drawing Conclusions

Physical Science

- Chemistry - What is Matter?
- States of Matter
- Chemical and Physical Properties
- Chemical changes/reactions
- Physics—Force and Motion
- Energy—What Is Energy?
- Energy Types and Sources
- Energy Transformations

Ecology

- Introduction to Ecology
- Energy in Nature - Interactions between matter and energy in the ecosystem

Life Science

- Cells—Introduction to Cell Theory
- Genetics
- Organization in Living Things
- Stimulus and Response in Living Things

Earth Science

- Geology
- Astronomy