

Course Description

6th Grade Science

COURSE DESCRIPTION: The 6th 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:

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

PRE-REQUISITES: None

COURSE LENGTH: One year

REQUIRED TEXT: None

COURSE OUTLINE:

Unit I: Introduction to the Scientific Method – Topics include: Scientific Method Steps - Collecting, reporting and analyzing data - Drawing conclusions

Unit II: Physical Science – Topics include: 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

Unit III: Ecology – Topics include: Introduction to Ecology • Energy in Nature - Interactions between matter and energy in the ecosystem

Unit IV: Life Science – Topics include: Cells - Introduction to Cell Theory; Genetics • Organization in Living Things • Stimulus and Response in Living Things

Unit V: Earth Science – Topics include: Geology; Astronomy