

SCIENCE DEPARTMENT
Middle School

PHILOSOPHY

The Science department at Saddlebrook Preparatory School believes that students who learn science can make informed decisions, be able to ask thoughtful questions and clearly communicate those questions and findings to those around them.. Students come in contact with multiple science experiences that nurture their and foster increased understanding of the things they observe and investigate. They increase their ability, to offer reasonable explanations, make predictions, and engage in more rewarding activities. They also learn to respect nature and their environment. Science strengthens their ability to think effectively, objectively and creatively.

OBJECTIVES

By the conclusion of his or her middle school years, each student-will have been exposed to the following science themes. The themes and their corresponding objectives are as follows:

1. The Nature of Matter

The student will understand that all matter has observable, measurable properties.

The student will understand the basic principles of atomic theory.

2. Energy

The student will recognize that energy may be changed in form with varying efficiency.

The student will understand the interaction of matter and energy.

3. Processes that Shape the Earth

The student will recognize that processes in the lithosphere, atmosphere, hydrosphere, and biosphere interact to shape the Earth.

The student will understand the need for protection of the natural systems on the Earth.

4. Earth and Space

The student will understand the interaction and organization in the Solar System and the universe and how this affects life on Earth.

The student will recognize the vastness of space and the Earth's place in it.

The student will be able to describe patterns of structure and function in living things.

The student will understand the process and importance of genetic diversity.

The student will understand the weather systems and the climatic changes that affect their daily lives

5. How Living Things Interact With Their Environment

The student will understand the competitive, interdependent, cyclic nature of living things in the environment and how the diversity of species affects the earth.

The student will understand the consequences of using limited natural resources.

The student will understand how the Earth's health depends on the world's awareness of harmful pollutants.

6. The Nature of Science

The student will be able to use the scientific processes and habits of mind to solve problems.

The student will understand that most natural events occur in comprehensible, consistent patterns.

The student will understand that science, technology, and society are interwoven and interdependent.

The student will be able to collect and interpret data.

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7. Science Modifications

There will be provided modified instruction for non-native speakers of English.

COURSE OFFERINGS

General Science

Earth Science

STRENGTHS

1. There are many opportunities for experiential science learning.
2. The science curriculum and school facilities provide for various hands-on learning through experiments and lab work.
3. The students have a wide exposure to different areas of the science curriculum.

RECOMMENDATIONS

1. Consider providing a place in the science classroom to keep cold items cold in preparation for science labs that require items in cold or frozen states.