

## Earth Science

Earth Science is a subject you're familiar with because your every activity depends on the natural environment around you. The types of clothes you wear depend on the weather and every item you buy is produced from natural resources. Your link to Earth and its environment is an important one. How you view your world is determined by your understanding of how it works. Earth Science will help you understand that many natural processes occurring around you. And once you've learned about your own planet, you'll explore other worlds and objects in the universe. As we cover Earth Science, you'll discover much about your natural environment and how you can help preserve it for your future.

## General Science

General Science encompasses the basic concepts and principles of both biological and physical sciences. This course explores scientific knowledge and scientific thinking and examines the diversity and unity within the natural world.

# Science Classrooms

# Walthill Public School



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## Physical Science



Students will undertake processes of inquiry and problem solving resulting in understanding of themselves and relationships to the

natural physical world. Students will be introduced to the principle of motion, energy, matter, waves, and chemistry, electricity, and magnetism and nuclear resources.

### **Astronomy/Meteorology**

Astronomy deals primarily with objects in the solar system. The course's major topics include the structure of the sun, and the structure and features of the planets and their moons, and solar system debris such as comets and asteroids. Meteorology gives an overview of weather maps; structure of the atmosphere and the role of moisture in the development of dew, clouds, and precipitation; air masses, fronts, cyclones, thunderstorms, tornadoes, and hurricanes. Elements of weather forecasting, instrumentation and communication are also discussed.

### **Life Science**

Life Science presents a scientific study of the structure and function of living organisms and their ecological relationships. Throughout the text, emphasis is giving to practice implications and everyday applications that are meaningful to the student. Attention is given to important principles and concepts that help students understand that there are general characteristics of life evident in every organism. In addition, students learn that differences in those characteristics that distinguish one species from another.

### **Biology**

Biology is the study of life; life as it is now, and life as it has been. Human existence is dependent on the understanding of plant and animal life—their evolutionary history, structure, function, behavior, and relationship to the environment. Because humans are part of the animal kingdom, the student will also study aspects of human activity. Labs are an integral part of this course. Students are presented problems, taught to form hypothesis, test their hypothesis, analyze the observed data, and arrived at a conclusion. Lab techniques developed in Biology will benefit the student in his/her interactions with living and non-living matter in the student's world.

### **Physics**

Students will undertake processes of inquiry and problem solving resulting in understanding of themselves and relationships to the natural mechanical world. Students will solve problems and infer relationships between matter and energy,

mechanics and heat, wave properties and electricity.

### **Chemistry**

Modern chemistry is designed to relate more to the need of everyday living. The program consists of six areas that may be used. Each area contains more material than is ordinarily included in a first year chemistry course so that you can select optional topics to fit the needs of the students and community.

This course follows a logical sequence in the development of chemistry principles. The text begins with the mechanics of chemistry, the mole concept, and the structure of matter. Then we deal with the behaviors of matter in terms of acidity, oxidation-reduction, and electric potential. It also includes descriptive material in nuclear, organic, colloid, coordinate, and analytical chemistry.

### **Anatomy**

Anatomy is study of the anatomical structure of the human body. Body structure will be studied by organ systems and will involve a balance between gross anatomical study and physiology. Form-function relationships will be emphasized. The laboratory study will involve working with human preserved specimens.

