

SCIENCE CURRICULUM GRADE 2

The Second Grade Science Curriculum is presented to the students through a guided inquiry approach which involves students gathering data through observations, questioning ideas, keeping accurate information, communicating the findings with others, and recording results through graphs, charts, maps, and reports.

The current curriculum consists of three units. Each unit covers specific standards found in the MA Science Curriculum Framework. These strands are Earth, Life, and Physical Science with Technology/Engineering components.

I. Soils

Students will use many basic techniques of soil science to explore a variety of soils and soil components. They will conduct tests to identify soil components, interpret tests to draw conclusions about soils, and record and communicate their observations. Your student will discover and be able to identify the different properties of sand, clay, humus, and garden soil. The students will be able to apply their new knowledge to draw conclusions about the composition of unknown soils. Students will also understand observe plant growth in different soils.

II. Butterflies

In this unit, students will be introduced to the concept of life cycles by using one organism as an example. Students will also learn observational skills and recording skills. The students will begin by learning about the chrysalis stage of a painted lady butterfly. They will learn about the basic needs (air, water, food, and shelter) of a caterpillar and how its habitat provides for these basic needs. They will also learn about and observe butterfly body parts and learn the function of each. Students will observe and record the metamorphosis of the butterfly. By the end of this unit, students will be able to recognize how animals interact with their environment through their senses (sight, hearing, touch & smell). They will release the butterflies thus, reinforcing the idea that they are part of the natural world.

III. Balancing and Weighing *(optional)*

In this unit, the students will explore balance by the manipulation of objects on a fulcrum. They will use materials such as glue, scissors, tape, rulers, and straws to build a mobile. In addition, they will work with a balance beam to explore how the amount and position of weight affects balance. Students will use an equal arm balance to compare the weights of different objects. They will use unifex cubes as standard units for comparisons. They will also solve problems involving the weights of various dried foods. The activities in this unit build on students' previous experiences with balance and weight.