

Grade 2 Science Units:

Insects and Plants (FOSS)

The Foss **Insects and Plants** Module provides students with life science core ideas dealing with structure and function of living things, growth and development of plants and animals, interactions of organisms with their environment, and biodiversity of organisms on land and in water. Students build on the science concepts of growth and development of plants and animals from grades K–1 by observing new organisms over time.

Students see the life cycles of insects unfold in real time and compare the stages exhibited by each species to reveal patterns. At the same time, students grow one type of plant from seed and observe it through its life cycle to produce new seeds. They gain experience with the ways that plants and insects interact in feeding relationships, seed dispersal, and pollination, and students develop models to communicate their understanding.

- **2-LS2-1. Plan and conduct an investigation to determine if plants need sunlight and water to grow.**
- **2-LS2-2. Develop a simple model that mimics the function of an animal in dispersing seeds or pollinating plants.**
- **2-LS4-1. Make observations of plants and animals to compare the diversity of life in different habitats.**

Solids and Liquids (FOSS)

The Foss **Solids and Liquids** Module provides students with physical sciences core ideas dealing with matter and its interactions and engineering design. The experiences help students to develop an understanding about how materials are similar and different from one another and how the properties of materials relate to their use.

Students observe, describe, and compare properties of solids and liquids. They conduct investigations to find out what happens when solids and water are mixed and when liquids and water are mixed. They use their knowledge of solids and liquids to conduct an investigation on an unknown material (toothpaste). They gain firsthand experience with reversible changes caused by heating or cooling, and read about changes caused by heating that are irreversible.

- **2-PS1-1. Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties.**
- **2-PS1-2. Analyze data obtained from testing different materials to determine which materials have the properties that are best suited for an intended purpose.***
- **2-PS1-3. Make observations to construct an evidence-based account of how an object made of a small set of pieces can be disassembled and made into a new object.**
- **2-PS1-4. Construct an argument with evidence that some changes caused by heating or cooling can be reversed and some cannot.**

Pebbles, Sand and Silt (FOSS)

The Foss **Pebbles, Sand, and Silt** Module provides students with earth science core ideas dealing with the observable structures and properties of earth materials (rocks, soil, and water), weathering and erosion of Earth's surface, natural sources of water, and how to represent the shapes and kinds of land and bodies of water on Earth.

Students use simple tools to observe, describe, analyze, and sort solid earth materials and learn how the properties of the materials are suited

to different purposes. Students explore how wind and water change the shape of the land and compare ways to slow the process of erosion. Students learn about the important role that earth materials have as natural resources.

- **2-ESS1-1. Make observations from media to construct an evidence-based account that Earth events can occur quickly or slowly.**
- **2-ESS2-3. Obtain information to identify where water is found on Earth and that it can be a solid or a liquid.**
- **2-ESS2-2. Develop a model to represent the shapes and kinds of land and bodies of water in an area.**
- **2-ESS2-1. Compare multiple solutions designed to slow or prevent wind or water from changing the shape of the land.**