Grade 1 - Pebbles, Sand & Silt (Gray)

Overview

This module has four investigations that introduce earth materials concepts to students. Students learn the names of several rocks and focus on the properties and uses of different natural resources.

Students will:

- Develop a curiosity and interest in the physical world around them.
- Observe, describe, and sort earth materials based on properties.
- Separate earth materials by size, using different techniques.
- Observe the similarities and differences in the materials in a rock mixture.
- Explore places where earth materials are found and ways they are used.
- Compare the ingredients in different soils.
- Organize and communicate observations through drawing, talking and writing.
- Acquire the vocabulary associated with earth materials.

Investigation 1: First Rocks

Students will observe, compare and sort rocks according to their properties. They will also observe how rocks interact with water and each other. Through this investigation they will learn that rocks are all around us and are the solid material of the earth; rocks have a variety of properties and can be sorted according to them.

Investigation 2: River Rocks

Students will explore a rock mixture and describe properties of different materials. They will separate the mixture with screens and water, and then explore the properties of wet and dry clay particles. Students will learn that rock sizes include clay, silt, sand, gravel, and pebbles.

Investigation 3: Using Rocks

Students will explore places where earth materials are naturally found and ways they are used. Different grades of sandpaper will be compared, sand will be used to make sculptures, beads and bricks, and students will find earth materials outside the classroom. They will learn that properties of different earth materials make them suitable for different purposes, and that earth materials are commonly used in construction.

Investigation 4: Soil Explorations

Students will make a mixture of earth materials to create soil and will separate components of soil using screens. They will also explore and find soil samples outside the classroom to learn that soils are a mixture of earth materials, vary from place to place and have different properties and texture.

Assessments

FOSS assessment is organized into three categories:

- **Content knowledge**: the facts and scientific concepts of the module
- **Conducting Investigations**: the skills needed for successful inquiry
- **Building Explanations**: the communication of ideas and evidence to support student learning

*Formative* and *summative* assessment strategies help the teacher understand what the students have learned and can do. Throughout the investigations, teachers use formative assessment strategies to inform their instruction, and the end-of-module and portfolio summative assessments provide evaluate information.

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