



Second Grade: FOSS Earth Science - Pebbles, Sand, and Silt



Investigation Title and Synopsis	Concepts	Assessments and TE Page Numbers
<p>1. First Rocks Students are introduced to the mineral portion of Earth. They investigate several kinds of rocks and begin to understand the properties of rocks and describe rocks based on their physical properties. Students rub rocks, wash rocks, sort rocks, and describe rocks. They also begin to organize a class rock collection. Through two readings, students learn about the properties of rocks and the colorful minerals they contain.</p>	<ul style="list-style-type: none"> • Rocks have a variety of properties color, hardness, shape, texture, and size • Rocks can be sorted by their properties • Rocks are all around us • Rocks are the solid material of the earth • Rocks are made of minerals 	<ul style="list-style-type: none"> • Part 1: Anecdotal Notes (page 239) • Part 2: Notebook Sheet 2 <i>Rock Record</i> (page 191) • Part 3: Anecdotal Notes (page 239) • Part 4: Teacher Observation: Demonstrates good sorting skills/ Assessment Checklist (pages 240-243) • Part 5: Anecdotal Notes (page 239)
<p>2. River Rocks Students investigate a river rock mixture of earth materials of different sizes. They separate the rocks, using a series of three screens to identify five sizes of rocks: large pebbles, small pebbles, large gravel, small gravel, and sand. They add water to a vial of sand to discover silt and clay. Students learn how sand is formed by reading the Story of Sand.</p>	<ul style="list-style-type: none"> • Rocks can be categorized by size • Screens and water can be used to sort the sizes of earth materials • Five sizes of rocks, from smallest to largest, are clay, silt, sand, gravel, and pebbles 	<ul style="list-style-type: none"> • Part 1: Teacher Observation: Observes and separates rocks based on the property of size/Uses appropriate vocabulary/Assessment Checklist (pages 240-243)/Notebook Sheet 2 <i>Rock Words</i> (page 192) and Notebook Sheet 4 <i>Create a Graph</i> (page 194) • Part 2: Teacher Observation: Observes and sorts material based on size/Assessment Checklist (pages 240-243)/Notebook Sheet 5 <i>Sand, Gravel, and Pebbles</i> (page 195) and Notebook Sheet 6 <i>How Many Grams?</i> (page 196) • Part 3: Notebook Sheet 8: <i>Sand and Water Drawing?</i> (page 198) • Part 4: Notebook Sheet 11 <i>Bottle Drawing</i> (page 201) Teacher Observation: Observes and compares results of earth materials in water/ Assessment Checklist (pages 240-243)

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<p>3. Using Rocks Students learn how people use earth materials to construct objects. They make rubbings from sandpaper, sculptures from sand, decorative jewelry from clay, and bricks from clay soil. Students find places where people have used earth materials in building materials. They also read two articles about how rocks move, and how people use large rocks, gravel, sand, and clay to build things.</p>	<ul style="list-style-type: none"> • Earth materials are natural resources • The properties of different earth materials make each suitable for specific uses • Earth materials can be used in a variety of structures 	<ul style="list-style-type: none"> • Part 1: Anecdotal Notes (page 239) • Part 2: Anecdotal Notes (page 239) • Part 3: Anecdotal Notes (page 239) • Part 4: Anecdotal Notes (page 239) • Part 5: Notebook Sheet Uses of Earth Materials (page 202)
<p>4. Soil Explorations Students put together and take apart soils. They are introduced to humus as an ingredient in soil. They compare homemade and local soils for texture, water retention capacity, color, and components. Through a video, students learn about what fossils tell us about Earth's past. Through readings, students learn more about soil, why soil is important for plants, and a famous dinosaur fossil.</p>	<ul style="list-style-type: none"> • Soil is a mixture of earth materials • Soils vary from place to place • Soils have properties of color and texture • Soils differ from their abilities to support plants and retain water • Soils can be composed of humus and different amounts and sizes of rocks • Fossils are the remains of plants and animals that lived long ago 	<ul style="list-style-type: none"> • Part 1: Teacher Observation: Uses plates, screen, and vials for separating soil/ Assessment Checklist (pages 240-243) • Part 2: Teacher Observation: Uses metric measuring tools/Assessment Checklist (pages 240-243)/Notebook Sheet 15 <i>Water and Soil</i> (page 205) • Part 3: Anecdotal Notes (page 239) • Part 4: Notebook Sheet 14 <i>Soil Drawings</i> (page 204) • Part 5: Notebook Sheet 17 <i>Fossils Review</i> (page 207) • End-of-Module Assessment (pages 290-298)

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