

<b>Science</b>	<b>SCI.V.1.2</b>	<b>Grade: K</b>
<p><b><u>Strand:</u>           Using Scientific Knowledge in Earth Science</b>  <b>                          - Geosphere</b></p> <p><b><u>Standard:</u>           All students will describe the Earths surface.</b></p> <p><b><u>Benchmark:</u>           Recognize and describe different types of earth materials.</b></p> <p><b>Constructing and Reflecting</b>  <b>SCI.I.1.1</b> - Generate reasonable questions about the world based on observation.  <b>SCI.I.1.2</b> - Develop solutions to problems through reasoning, observation, and investigation.  <b>SCI.I.1.3</b> - Manipulate simple devices that aid observation and data collection.  <b>SCI.I.1.4</b> - Use simple measurement devices to make measurements in scientific investigations.  <b>SCI.II.1.1</b> - Develop an awareness of the need for evidence in making decisions scientifically.  <b>SCI.II.1.5</b> - Develop an awareness of contributions made to science by people of diverse backgrounds and cultures.</p>		
<p><b>Vocabulary / Key Concepts</b></p> <ul style="list-style-type: none"> <li>• Minerals</li> <li>• Rock</li> <li>• Boulder</li> <li>• Sand</li> <li>• Gravel</li> <li>• Clay</li> <li>• Soil</li> </ul>	<p><b>Context</b></p> <p>Samples of natural Earth materials such as Minerals, Rock, Boulder, Sand, Gravel, Clay, Soil.</p>	

<p style="text-align: center;"><b>Knowledge and Skills</b></p> <p>The Earth's surface is made of many different materials: Minerals, Rock, Boulder, Sand, Gravel, Clay, Soil.</p> <p>Students will classify many types of materials and recognize and locate where these materials are found locally.</p>	<p style="text-align: center;"><b>Resources</b></p> <p>Coloma Resources:</p> <p>Newbridge Big Book and Teacher's Guide:</p> <ul style="list-style-type: none"> <li>• <b><i>Rocks and Soil</i></b></li> <li>• Photo Cards</li> </ul> <p>Other Resources:</p> <p>Bains, Rae, 1985, <b>ROCKS AND MINERALS: Mahwah, New Jersey, Troll (Venture into Reading series), p 32</b></p> <p>Cole, Joanna. <i>Magic School Bus: Inside the Earth</i>. Scholastic, 1989</p> <p>Gans, Roma. <i>Let's Go Rock Collecting</i>. Harper, 1997</p> <p>Wooley, Allan. <i>Rocks and Minerals</i>. Usbourne, 2001.</p>
<p style="text-align: center;"><b>Instruction</b></p> <p><b>Benchmark Question:</b> What is the Earth's surface like?</p> <p><b>Focus Question:</b> How would you recognize the different natural materials found on the Earth's surface?</p> <p>The teacher will give students samples of each of the materials found in the "Context" section.</p> <p>Students will study the samples using various science processes and tools such as hand lenses, balances, and rulers. During the observations, students will discuss questions about rocks, minerals, and soil, such as "What does it look like?, feel like? How is it like/unlike the others?, where would you find this locally or in the state? How is it used?"</p>	<p style="text-align: center;"><b>Assessment</b></p> <p>None</p>

**Teacher Notes:****Describe the earth's surface.**

Elementary students are likely unaware of the size, shape and variety of surfaces of the earth beyond their neighborhoods, but soon learn that all the geosphere is made of similar material. They learn that under the pavement and the ground floors are soil, rock, and water. The students begin to realize that the surface of the earth is extremely uneven, but the difference between mountains, hills, rocks, pebbles, and soil is only size not composition. They learn that mountains are formed and worn down into the other features. Through various media and field trips, students observe that beyond their sidewalks, fields and neighborhood buildings, there are mountains and valleys, hills and plains, lakes and ponds, rivers and creeks, deserts and rainforests. Through the study of maps, an understanding develops that the earth is round and that the features of the earth are diverse.