

Rock Attributes

Simple STEM Activities You Can Do at Home

Purpose:	The purpose of this activity is for students to investigate different attributes of rocks and then use these attributes to build something useful.
Standard:	<p>SKE2. Obtain, evaluate, and communicate information to describe the physical attributes of earth materials (soil, rocks, water, and air).</p> <p>b. Construct an argument supported by evidence for how rocks can be grouped by physical attributes (size, weight, texture, color).</p> <p>S3E1. Obtain, evaluate, and communicate information about the physical attributes of rocks and soils.</p> <p>a. Ask questions and analyze data to classify rocks by their physical attributes</p>
Materials:	Handful of small rocks or gemstones, ball of Playdoh or clay.
Procedures:	<p>How to do:</p> <ol style="list-style-type: none"> 1. After learning about rocks, separate your rock sample into groups using a feature of the rocks that you think is important. 2. After placing them in groups, have another person try to guess what feature you used to separate the rocks. 3. Plan and design a simple structure made from rocks that has a useful purpose. 4. Using the materials provided and your plan, construct your structure. Your structure should include rocks, and a binder (Playdoh or clay) to hold the rocks. 5. Once your structure is constructed, carefully test it by trying it out to see if it works. Observe and record how well it works. 6. After testing, try to improve your structure in 1-2 ways.
Science Behind It:	<p>Rocks are natural objects that are composed of solid crystals. Rocks are made of a mixture of minerals. Rocks have different attributes (features) that are used to describe them including their color texture, luster, and hardness.</p> <p>The color, or tint, of a rock depends on the minerals that are found in the rock. The colors can be bright and lively or dull and cloudy. Brightly colored rocks that are cut and polished are often called gems.</p> <p>The texture of a rock refers to how the rock feels on the surface. Some rocks feel smooth when you touch them while others feel rough. While the texture of a rock determines how it feels, you can also see with your eyes how textures like smooth and rough are different.</p> <p>The luster of a rock refers to the sparkle and shine of a rock. Rocks that reflect lots of light usually have lots of luster.</p> <p>The hardness of a rock describes the stiffness of a rock. Hard rocks resist scratching, denting, and bending. The hardness of rocks and minerals can be measured using the Mohs scale.</p> <p>In this activity, your first task is to separate your rocks into groups using an attribute of the rocks that you think is important. You second task it to design and build something useful using the rocks and some Playdoh or clay.</p>
Questions to Ask:	<ol style="list-style-type: none"> 1. Explain why rocks are often used to build things.