

SOUTH CAROLINA STATE MUSEUM PRE-VISIT MATERIALS FOR THE MUSEUM TOUR

BENEATH YOUR FEET Grade K4-6

OVERVIEW

The earth is divided into four distinct layers. They are the crust, mantle, outer core and inner core. This lesson will focus on the components that form the crust. Students will observe and examine fossils, types of soils, sands, rocks and minerals. They will be shown several ways to identify different rocks and minerals. After they have practiced these tests, they will be challenged to identify mystery rocks and minerals.

This pre-visit packet includes some activities that you may want to do before this lesson. It includes a glossary and a word search.

BEFORE YOUR MUSEUM VISIT

Get your students excited about the Earth Materials unit by making a volcano. Discuss why the types of volcanic rocks feel and look different.

Begin a classroom earth materials collection. Ask students to collect earth materials from their neighborhoods. You may want to order some specimens. Many may be collected from various places, especially in mountainous areas. Ask your students to collect unusual rocks, different types of soils, sands and clays, fragments of fossils, etc. when they travel to different parts of the state or to other states. Let the students create ways to organize the collection.

Use a microscope or magnifying lens to observe the crystals of minerals such as rock salt, quartz and pyrite. Several attributes are used to identify and classify minerals. Some are color, hardness, crystal shape, etc. Each mineral has crystals that are made of specific chemicals and the chemicals can form crystals of only one shape. Color is useful in identifying minerals but not as reliable as the other characteristics.

Show students the shape of some crystals by using different chemical compounds to grow crystal gardens. Ask your students to grow crystal gardens.

GLOSSARY

Crust – The outside layer of the earth.

Crystal – A piece in a mineral that has a definite shape.

Coquina – A sedimentary rock formed when seashells are cemented together.

Fossil – Anything left behind by prehistoric life.

Gemstones – Minerals that show some form of beauty.

Geologist – A scientist that studies the earth.

Igneous – One of the three major groups of rocks; the rocks are formed when lava or magma cools.

Lava – Melted rock that has come to the surface of the earth.

Luster – The amount of shininess of a mineral or object.

Metamorphic – A type of rock formed when other rocks change because of heat and pressure.

Magma – Melted rock inside the earth.

Minerals – Substances that occur naturally found in the earth and have never lived.

Rocks – Solid earth materials, which are made basically of minerals.

Streak – The powder a mineral leaves when it is rubbed.