

IGNEOUS ROCKS

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Title: Igneous Rocks/Volcanoes

Level: Upper Primary

Time: 2-3 days

KERA Goals: 2.4, 2.5, 2.6

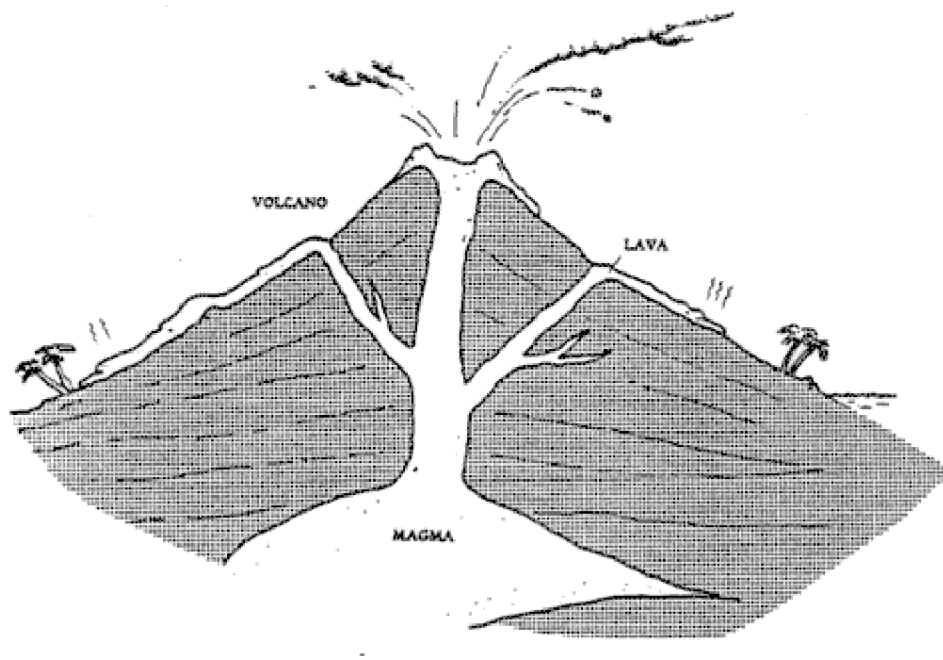
Materials: Rocks, balloon, water

Objective:

Students will differentiate between the two types of igneous rock and designate the area the rock comes from.

Background Information:

Igneous rocks are formed by the cooling of magma and lava.



Definitions:

extrusive - rocks cooled above earth's surface (lava).

Common Intrusive Rocks-- Granite, Quartzmonzonite, Diorite

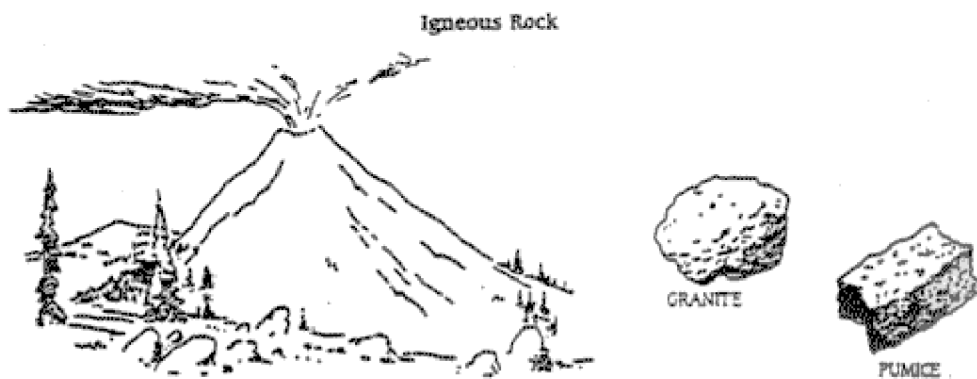
intrusive - rocks cooled below earth's surface (magma).

Common Extrusive Rocks-- Basalt, Pumice, Obsidian, Rhyolite

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Activity:

1. Identify different types of igneous rocks from rock samples. Locate on diagram (above) the area where each rock can be found.
2. Fill balloon half full with water. Tie off. This will simulate how flowing lava feels.



Materials:

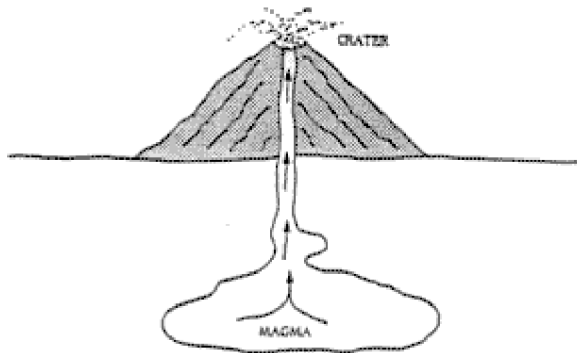
plaster mix
water
mixing pan
baking soda
vinegar
cone-shaped paper cup

Activity: Make Your Own Volcano

1. Mix the plaster and water in a mixing pan.
2. Pour the plaster into the cone shaped cup.
3. Before the plaster hardens, turn the paper cup over and place it on a piece of paper.
4. Cut a small piece of the top off the cone.
5. Using your finger, or a pencil, push into the top of the plaster to form a crater. Be certain to hold the crater open until the plaster hardens.
6. Peel the paper cup off after plaster hardens.

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7. Pour baking soda into the crater and add 2 or 3 drops of vinegar and watch it erupt.



Have students paint and decorate their volcanoes. Make tropical islands.



Materials:

aluminum foil
dark corn syrup
newspaper

Activity: Creeping Lava

1. Mold the aluminum foil into the shape of a volcano. Put in lots of creases to form valleys and ridges.
2. Put your volcano on a spread-out piece of newspaper.
3. What paths would lava take if it flowed down your volcano?
4. Pour the dark corn syrup on the very top of your volcano. Watch the "lava flow." Be certain to stop as soon as the syrup reaches the bottom.

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Discussion:

1. Does the lava take the paths predicted?
2. Describe how the lava flows.
3. Where would you build your house to protect it from lava flows?

Let the syrup dry for half an hour. Then tip the volcano at an angle.

1. Does the syrup flow?
2. Poke the syrup with a pencil. Does it have a skin?
3. How is the syrup like real lava?

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