



Volcanoes

Description:

Build your own model volcano to demonstrate volcanic activity by combining baking soda and vinegar causing an acid-base reaction. Acetic acid (a weak acid) reacts with and neutralizes sodium bicarbonate (a base). The carbon dioxide that is given off is a gas. Carbon dioxide is responsible for the fizzing and bubbling during the 'eruption'.

Ingredients:

Baking soda, Vinegar
Dish soap (optional), Food coloring (optional)
1 paper plate (9"), 1 small Dixie cup (3 oz)
Aluminum foil, Tape, Pencil, Scissors

Directions:

Take the Dixie cup, right side up, and tape to the center of the paper plate. This will be the foundation of the volcano. Next cover the newly made foundation with aluminum foil and fold the foil under the edge of the plate. Poke a hole through the foil into the center of the Dixie cup. Then make slits from the middle to the inside edge of the cup with scissors. Fold the slits of foil into the cup. Pour baking soda into cup. Add dish soap and red food coloring to the baking soda (optional - food coloring will emulate lava). Pour in vinegar. Volcano will erupt.

National Standards for Science

Grades K-4 Standard B - Earth's surface is dramatically reshaping itself in an endless, slow motion ballet called plate tectonics propelled by intense heat simmering beneath the crust. This can be used when speaking about feeding volcanic eruptions.

Grades 5-8 Standard B - Geothermal energy is plentiful, but geothermal power is not. Temperatures increase below the earth's surface. The internal heat of the Earth is an immense store of energy. This can be used if speaking about volcanic eruption releasing energy.