

MAKE YOUR OWN VOLCANO!

YOU WILL NEED:

- A volcano - Talk to an art teacher about making a volcano out of papier mache or plaster. You can also use clay or if you're in a hurry to make your volcano, use a mound of dirt outside.
- A container that 35mm film comes in or similar size container.
- Red and yellow food coloring (optional).
- Vinegar
- Baking soda
- Liquid dish washing soap

WHAT TO DO

1. Go outside or prepare for some clean-up inside.
2. Put the film container into the volcano at the top.
3. Add two spoonfuls of baking soda.
4. Add about a spoonful of dish soap.
5. Add about 5 drops each of the red and yellow food coloring.
6. Now for the eruption!: Add about an ounce of the vinegar into the container and watch your volcano come alive!

HOW DOES IT WORK?

A VOLCANO is produced over thousands of years as heat and pressure build up. That aspect of a volcano is very difficult to recreate in a home experiment. However this volcano will give you an idea of what it might look like when a volcano erupts flowing lava. This is a classic experiment in which a CHEMICAL reaction can create the appearance of a PHYSICAL volcano eruption. You should look at pictures of volcanoes to be familiar with the different types. (A SHIELD volcano, for example is the most common kind of volcano, and yet few people know about them.) The reaction will bubble up and flow down the side like a real volcano (only much faster!) Look for videos of volcanoes erupting and be sure that you understand how heat and pressure work to really make volcanoes erupt.

MAKE IT AN EXPERIMENT:

The above is a DEMONSTRATION. To make it a true experiment, you can try to answer these questions:

1. Does vinegar temperature affect how fast the volcano erupts?
2. Does the shape of the volcano affect the direction the eruption travels?
3. What can be added to the "lava" to slow it down and make it more like real lava?
4. What combination of vinegar and baking soda creates the biggest eruption?

