



# Rumbling Volcano Experiment

Volcanic islands, also known as oceanic islands, are formed by volcanoes that have erupted on the seafloor. Over millions of years, layer upon layer of lava builds up until the top of the volcano emerges above the ocean's surface. Volcanic islands can be as low as a couple meters above sea level, or as high as the 4,000-meter (2.5 mile) peak of Mauna Kea on the big island of Hawai'i. Create your own erupting volcano in this classic science experiment.

## Materials

Baking sheet with edges  
Homemade or store-bought play dough (or dirt and sand)  
1 tbsp baking soda  
1/3 cup vinegar (optional: mixed with 1-3 drops red food coloring)  
Plastic spoons  
Small measuring cup

## Directions

1. **Shape** your play dough (or dirt and sand) into a small mound and press down on the top to make an indentation. This is your volcano's caldera or "crater."
2. **Place** the volcano in the middle of the baking sheet.
3. **Pour** the baking soda into the volcano opening with the plastic spoon.  
*Optional:* add 1-3 drops of red food coloring.
4. **Pour** the vinegar very slowly into the volcano opening on top of the baking soda.
5. **Observe** the chemical reaction and add more vinegar to the mixture.  
How fast do the "lava" bubbles rise? Do they flow evenly out of the entire rim or is the "lava" only flowing down part of the volcano? Why do you think that might be? Once there are no more bubbles, the "eruption" is over.