



VOLCANO IN A BOTTLE

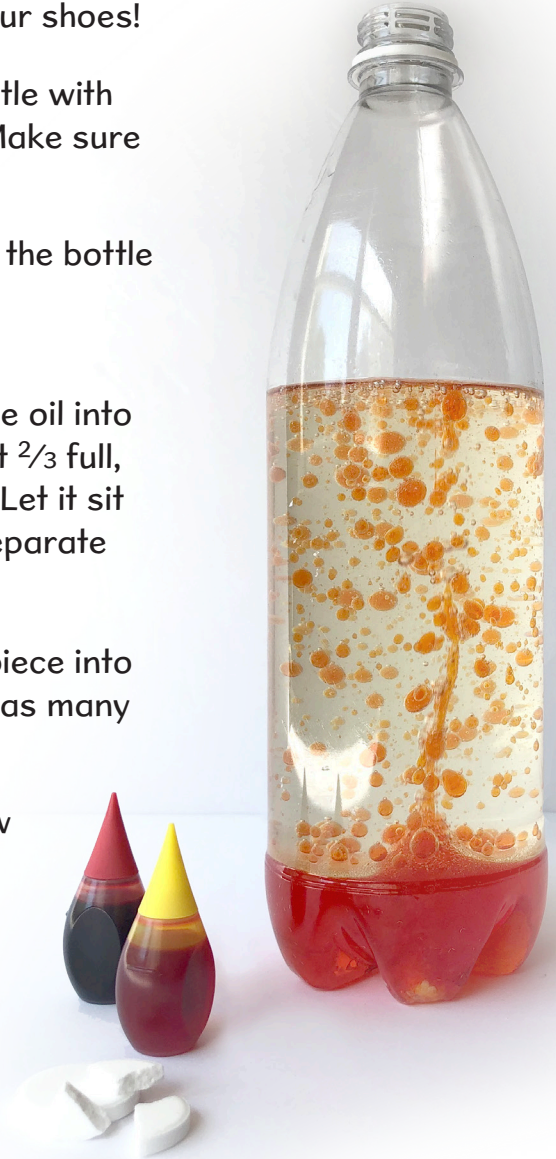
Unless you're a lava-proof lizard, it's dangerous to get too close to an erupting volcano. This project lets you get a peek at how lava moves—without melting your shoes!

SUPPLIES

- Clear plastic bottle
- Water
- Food coloring
- Vegetable oil
- 1 effervescent antacid tablet (like Alka-Seltzer®)

1. Thoroughly wash the bottle with soap and warm water. Make sure you keep the cap!
2. Pour 1 inch of water into the bottle and add about 10 drops of food coloring.
3. Slowly pour the vegetable oil into the bottle until it is about $\frac{2}{3}$ full, as shown in the picture. Let it sit until the oil and water separate into 2 layers.
4. Break an antacid tablet into 4 pieces. Drop one piece into the bottle and watch your volcano erupt! Repeat as many times as you'd like.
5. After the bubbling has completely stopped, screw the cap back onto the bottle. Now you have a volcano in a bottle, and you can always predict when it will erupt—no seismograph needed!

You can use any color you like, but red and orange will give you the most lava-like effect!



FUN FACT

Water sinks to the bottom of the bottle because it's denser than oil. The antacid tablet reacts with the water to release carbon dioxide, which rises, taking little bits of colored water with it and causing that cool, lava-like bubbling effect. When the bubbles pop, the ride's over, and the water sinks right back down to the bottom!

In our volcano, oil rises to the top because it's less dense than water. Before a volcano erupts, magma (molten rock inside the earth) rises to the surface because it is less dense than the rocks surrounding it!