

Volcano Experiment

Explore Earth's volcanoes with this outdoor science experiment!

Materials Needed:

Glass jar (or plastic cup), 5 tablespoons baking soda, 2 teaspoons dish soap, 1 ½ cups water, red food coloring or tempera paint, 1-2 cups vinegar. You will also need an outdoor area with snow, soil, gravel, or sand.

Instructions:

Step 1: Choose an area outside. Pile snow, soil, gravel, or sand up to make a mound. This will be your volcano.

Step 2: In your jar or cup, mix 1 ½ cups water, 5 tablespoons baking soda, 2 teaspoons dish soap, and a few drops of red paint or food coloring.

Step 3: Make a small hole at the top of your volcano. Place the jar or cup inside with the top open.

Step 4: Pour 1 cup of vinegar into the jar and enjoy the volcanic eruption! Pour more vinegar and add more baking soda to make a second eruption and prolong the fun.



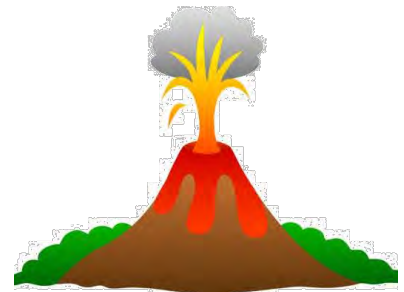
[Image: Preschool Inspirations.](https://preschoolinspirations.com/easy-baking-soda-and-vinegar-volcano-eruption-for-kids/)



Activity adapted from
preschoolinspirations.com/easy-baking-soda-and-vinegar-volcano-eruption-for-kids/

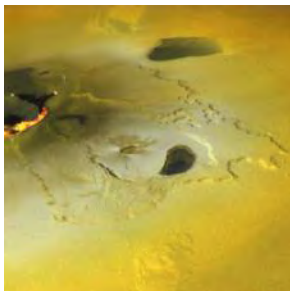
Volcanoes on Earth and Beyond

Volcanoes are a special kind of mountain. Unlike other mountains, they have a vent directly connected to the hot magma under the surface of the planet. During each volcanic eruption, lava is expelled and hardens on the ground. Over time, this builds up to form a mountain around the vent. Earth has about 1500 possibly active volcanoes. About 500 of these have erupted since people began keeping written records.

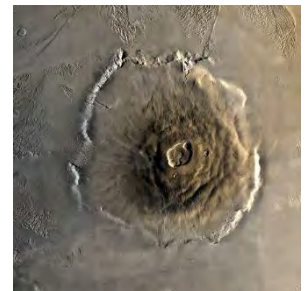


Left: Steam plume of Redoubt Volcano, Lake Clark National Park, Alaska, May 8, 2009. Image: USGS.

In 1979, NASA's Voyager 1 probe took a picture of Io, one of Jupiter's moons, and discovered an active volcano on its surface. This was the first volcano discovered outside of Earth. Since then, scientists have discovered many more volcanoes in the Solar System, on both planets and moons.



Our neighboring planet Venus has more volcanoes on its surface than any other planet in the Solar System. Mars has the largest known volcano. Olympus Mons is almost 3 times higher than Mount Everest, the tallest mountain on Earth!



Bottom left: Volcanic eruption on Io in 2000. Image: NASA/JPL.

Bottom right: Olympus Mons on Mars. Image: NASA/Viking Orbiter.