UAMN Virtual Early Explorers: Mountains

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-

Volcanoes on Earth and Beyond

Volcanoes are a special kind of mountain. Unlike other mountains, they have a vent directly connected to the hot magna 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 Voyager 1 probe took a picture of Io, one of 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.