

Volcanoes Lab Activity – Student Edition

Make your Own Volcano!

Background Information:

A volcano is a mountain or a hill with an opening where magma is pushed out into the Earth's surface with immense force. As soon as magma reaches the Earth's surface, it is called lava. Types of volcanoes can be classified according to the composition and shape of the cone, and its activity. The type of volcanic eruption varies, each one can go from quiet to violent.

In this activity, you will create your own exploding volcano using things that you can find in your very own kitchen!

Learning Objectives:

At the end of this laboratory activity, students are expected to:

- Build their very own volcano.
- Describe what happens during a volcanic eruption.

Laboratory Proper:

Materials:

- $\frac{1}{4}$ cup vinegar
- 2 tablespoons baking soda
- Red food coloring
- Any of the following: an empty plastic water bottle, a plastic cup, a glass jar, or any container that serves as the base of the volcano that can hold our materials (preferably with a small opening)
- A party hat, playdough, or you can create your own mountain structure from cardboard or a paper mache. This serves as the shape of your volcano.

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Procedure:

1. Place the baking soda in an empty water bottle.
2. Cover the water bottle with something that will make it look like a real volcano. Choose from the materials mentioned above.
3. Add a few drops of red food coloring to the vinegar.
4. Make sure to leave the top open as this will be the volcano’s vent.
5. Pour the vinegar mixture into the vent over the baking soda and watch it fizz and explode!

Discuss the following questions and answer as a group.

1. Describe what happened when vinegar was mixed with baking soda?

2. How is it similar to a real volcano?

3. What causes lava to flow?

4. What was your favorite part in the experiment?
