



Homemade volcano erupting

Ages: 4-7, 8-12

What are we going to do?

This activity invites you to create a homemade volcano with clay or playdough and experience a safe eruption through a simple chemical reaction. It allows you to develop creativity, fine motor skills, and scientific thinking through play. It's a highly visual, hands-on, and motivating activity that combines art and science.

Materials you will need:

- 2 clay molds
- Black, white, and green modeling clay
- Vinegar
- Water
- Gel (optional)
- Spoon
- Sodium bicarbonate
- Food coloring (preferably red)
- Newspaper to protect the table

Duration: 1 hour



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Instructions

Preparation (5 minutes)

Cover the table with newspaper to protect it from the clay and lava of the experiment.

Modeling the base (10 minutes)

Knead the two clay molds.

- With one, form a ball that will be the mountain.
- With the other, create a flat base.
- Join both parts and begin to shape them with your hands to form the volcano, aiming for a smooth, conical shape.

Volcano decoration (10–15 minutes)

- Form small balls of white modeling clay and place them around the peak.
- Create strips or "churros" of black plasticine and place them on the slopes simulating cracks or solidified lava.
- Make sure the modeling clay adheres well to the clay.

Create the crater (5 minutes)

Using a spoon, remove some clay from the top to form a small hollow where the mixture will go.

Preparing the lava (5 minutes)

In a bowl:

- Add a few drops of red food coloring.
- Add a small glass of vinegar.
- Mix well.

Pour the contents into the volcano's crater.



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Eruption (5 minutes)

Add a spoonful of baking soda into the crater and observe the reaction:

The volcano erupts!

To get more lava, add more baking soda or more vinegar and dye mixture.

Observation and cleaning (10 minutes)

Discuss with the children what has happened, what they have observed, and why they think the "eruption" occurs.

Clean the table and collect the materials.

TIP:

Some children will want to build a very detailed volcano, while others will prefer to go straight to the eruption. You can suggest variations:

- Decorate it like a tropical volcano with vegetation.
- Create a landscape around it (animals, mountains, lava rivers).
- Experiment with different colors of lava.

It is ideal to adapt the level of detail and explanation to the age and interest of each child.



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The project “EUROPEAN DIGITAL CAMPS FOR THE INCLUSION OF YOUTH WITH RETINOBLASTOMA: Spaces for the digital and social construction of youth with retinoblastoma in Europe” is co-financed by the Erasmus+ program of the European Union. The content of this result is the sole responsibility of Fundació La Nineta dels Ulls, SmallCodes, Zavod Botter, Artistes du Monde, Intress and Redtree Making Projects Coop.V. Neither the European Commission nor the Spanish Service for the Internationalization of Education (SEPIE) are responsible for any use that may be made of the information disseminated here.



**Co-funded by
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