

Exploding Volcano

Students make a flap book and observe what happens when a volcano explodes.

Science

Corner

Volcanoes erupt in different ways. The volcano in the lift-and-look book explodes violently and shoots a fountain of lava into the air. (Note: Inside a volcano, hot, melted rock and gases are called magma. When magma flows out of a volcano it is called lava.) As lava cools in the air, it can solidify into powdery ash, chunky stones, and bowling-ball-size rocks known as volcanic bombs. Lava flowing down the sides of the volcano also hardens into rock, adding a new layer that can make the volcano grow into a mountain over time. Some volcanoes erupt and then lie dormant for hundreds of years. Other volcanoes continuously erupt and spew lava but don't explode violently.



MEETING THE SCIENCE STANDARDS

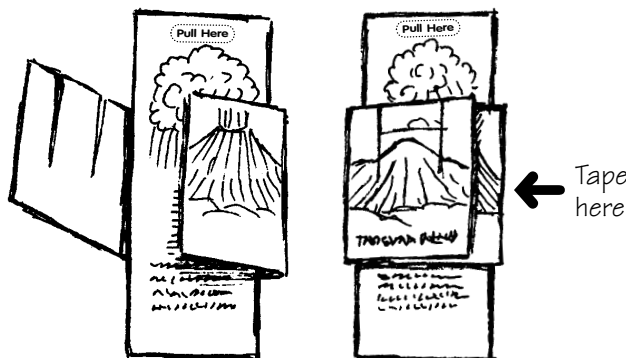
- ⊙ Changes in the Earth and Sky
- ⊙ Properties of Earth Materials

Making the Book

1 Photocopy page 55. Cut out the three pieces along the solid black lines. Cut open the flap along the solid black lines on the title page, too.

2 Fold page 2 along the dotted line. Place the PULL HERE piece faceup behind page 2 as shown.

3 Fold the title page over page 2 and tape as shown.



MATERIALS

- ⊙ reproducible page 55
- ⊙ scissors
- ⊙ tape
- ⊙ colored pencils, crayons, or markers (optional)
- ⊙ tiny pebbles (optional)
- ⊙ glue (optional)



Resources

❖ *The Magic School Bus Blows Its Top*

by Joanna Cole
(Scholastic, 1996).
Ms. Frizzle's students witness an erupting underwater volcano, which gives birth to a new island.

❖ *Volcanoes*

by Seymour Simon
(Mulberry Books, 1995). Not all volcanoes look like mountains—some are just plain holes in the ground. Includes pictures of volcanoes from around the world.

4 Open the flap on the title page and tape the remaining piece on the back of the flap so that you can read it.

5 **OPTIONAL:** Glue tiny pebbles on top of the small round circles under the ash cloud on the PULL HERE piece and on page 2 above the exploding volcano.



Teaching With the Book

- 1 Find out if students have ever seen an exploding volcano in a movie or on TV. Invite students to describe what they remember most about volcanoes.
- 2 Inform students that a volcano is an opening in the earth's rocky outer layer, or crust, where hot, melted rock can escape from inside the earth. Volcano is also the name given to mountains that build up around such openings.
- 3 Invite students to color and assemble their lift-and-look flap book. If students glued tiny pebbles to their book, point out that they represent the lava that cooled and hardened into rock.
- 4 Students should read their books as follows: first, the text at the bottom of the PULL HERE piece, then the text on the inside of the flap.
- 5 Have students compare the volcano before and after the explosion. Ask: "What do you notice about the volcano after the explosion?" (*The cone-shaped top of the mountain is gone.*) Explain to students that when a volcano "blows its top," the bowl-shaped pit that is left is called a crater.
- 6 On the back of their book, invite students to draw a picture or write a sentence that tells something they learned about volcanoes.

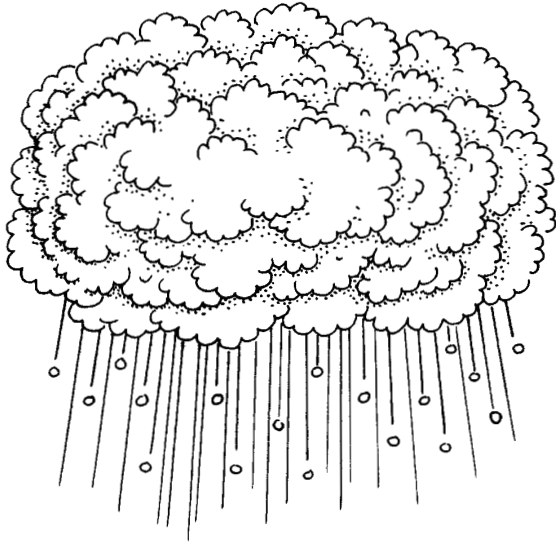
More to Do

Magma on the Move

Demonstrate for students how magma under pressure pushes out of the ground through a volcano. Place a half-full tube of toothpaste (with the cap on) on a desk. Ask students to imagine that the tube is the surface of the earth. The toothpaste inside is the hot, melted magma underground. Distribute the toothpaste evenly in the tube. Then use a pin to make a tiny hole near the bottom. Ask students what the hole might represent. (*a volcano's opening*) Press down on the tube near the cap. Ask students what this action might represent. (*magma under pressure*) What happens? (*The magma oozes out of the volcano.*)

Exploding Volcano

Pull Here

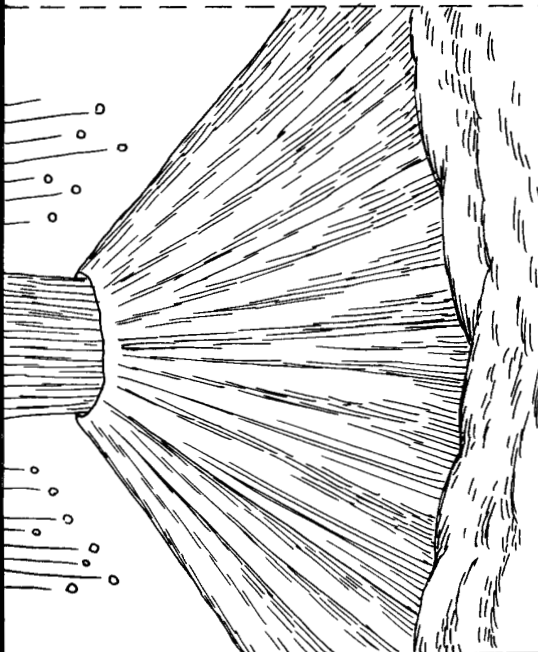


Exploding Volcano

This mountain is a volcano.
Inside are hot, melted rock
and gases, called magma.
Magma can make a volcano explode.
Pull this piece up, then lower the flap.

Cut out

The volcano explodes.
Hot, melted rock shoots
up into the air.
It is now called lava.
When lava cools, it can
harden into chunks of rock
that fall to the ground.



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