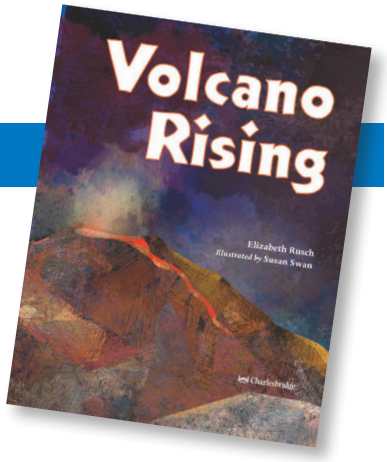
Volcano Rising



RIF EXTENSION ACTIVITIES FOR EDUCATORS

STEAM-THEMED: SCIENCE, TECHNOLOGY, ENGINEERING, ART, MATH

SCIENCE, ENGINEERING, MATH

LET THE LAVA FLOW!

(Intermediate Elementary)

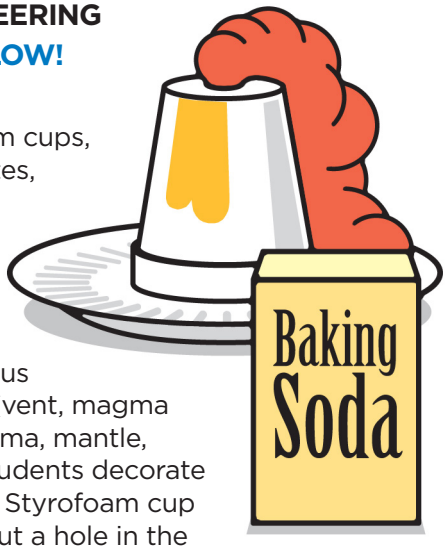
Materials: toilet paper, markers, small paper cups, baking soda, vinegar, food coloring, notebook paper/ lab sheet, rulers

Discuss the three main types of volcanoes (shield, cinder cone, and stratovolcano). Arrange the class into groups of four. Give each team a roll of toilet paper and markers to create one of the three types of volcanoes. Once their volcano is built, they need to measure and record its height and predict the distance they think their lava will flow. Next, provide students with a small cup with 2-3 tbsp. of baking soda to put on top of the toilet paper roll (volcano vent). Go around to each group and add the "magma" mixture of red food coloring and 1/3 c. vinegar to each volcano. Have students observe each group's magma flow. Use rulers to measure the length of the flow from the vent of the volcano. Record.

SCIENCE, ENGINEERING

LET THE LAVA FLOW!

(Early Elementary)



Materials: Styrofoam cups, markers, paper plates, small paper cups, baking soda, red food coloring, vinegar

Create a diagram to discuss the various parts of a volcano (vent, magma chamber, lava, magma, mantle, crust, etc.). Have students decorate the outside of their Styrofoam cup with markers and cut a hole in the bottom of their cup. They may determine the size of the hole. Place a small paper cup with 2-3 tbsp. of baking soda in the middle of a paper plate. Place the Styrofoam cup upside down over top of the smaller cup. Pour the magma mixture (red food coloring and 1/3 c. vinegar) inside each vent (hole); have the students watch their lava flow! After the experiment discuss the various sizes of holes the students used for their vents and what effect the vents had on the flow of lava.

ART, WRITING

SHAPE IT UP

Materials: crayons, markers, colored pencils, pencils, paper

Discuss onomatopoeia. Make a list with the class of words and phrases to describe what a volcano looks like, acts like, feels like. Have students create their own shape poem about volcanoes. (Shape poems are poems that describe an object and are written in the shape of that object.) Make sure students use words to design the volcanic mountain, lava, magma, etc. They can add color to their shape poem after it is designed. Have a class poetry celebration to share.

MATH, TECHNOLOGY, GEOGRAPHY

THE VOLCANO RACE

Materials: reproducible copies of a world map for each student, ruler with inches, a die, two different colors of markers or crayons

Visit **www.mapsofworld.com/major-volcanoes.htm** to locate the 8 volcanoes in the book. Have students mark each location on their world map. Then, in pairs students will race around the world. Select a start point. Students will roll the die to see how many inches to draw in the direction of the closest volcano. The first person to reach all 12 volcanoes first wins!

ART, TECHNOLOGY, WRITING

COMING SOON...VOLCANIC ATTRACTIONS!

Have students work with a partner to research a volcano using the following technology links:

- **https://interestingengineering.com/a-closer-look-at-the-worlds-9-most-active-volcanoes**
- **www.volcanolive.com/active2.html**
- **https://www.natgeokids.com/uk/discover/geography/physical-geography/volcano-facts/**

Have students obtain facts and create a poster to introduce their chosen volcano (e.g., a new ride attraction or movie) with facts, its name, and a descriptive picture. Students can then share their volcanic attraction with the class.