

***Celebrating Science: Volcanoes***  
**Grade: K-4**



**Celebrating Science: Volcanoes**

**Description:**

An exploration of volcanoes would not be complete without studying Hawaii. Hawaii Volcanoes National Park showcases the results of 70 million years of volcanism, migration, and evolution – “processes that thrust a bare land from the sea and clothed it with complex and unique ecosystems and a distinct human culture.” Students will virtually visit the world’s most active volcano, Kilauea, to learn about the birth of the Hawaiian Islands and the new land that is currently forming. A park ranger will share information about the structure and effects of volcanoes as well as Hawaiian legends that tell the cultural story of Hawaii’s volcanoes.

**Video Link:** (Use the following link to view the *Celebrating Science Volcano* video)

[http://easylink.playstream.com/21\\_CenturyLearning/journeys/hawaii/hi\\_volcanoesmbr.rm](http://easylink.playstream.com/21_CenturyLearning/journeys/hawaii/hi_volcanoesmbr.rm)



This photo shows lava entering the ocean on the south flank of Kilauea. Lava has been extending the coastline on this part of the island for over 10 years.

Photograph copyrighted by [Paul Buklarewicz](#).

## **Discussion:**

**Lesson at a glance:** Students will use world, state, and county maps to learn the location of the volcano in their assigned region of Hawaii. Students will discuss the basic structure of Hawaiian volcanoes, and the potential effects of an eruption in their area. Students will discuss potential dangers and concerns that would effect their environment due to an eruption.

**Key Concepts:** Hawaii is a remote island chain in the Pacific Ocean. Most of the population lives on five major islands. The Island of Hawaii is made of five volcanoes. The potential for an eruption at a given location is determined by the status of the volcano (active, dormant, or extinct) and, for the dormant and active volcanoes, the proximity to the summit or rift zones.

## **Lesson Outcomes:**

The students will:

1. Locate their assigned town/region on a county map of Hawaii
2. Name the volcano on which they live
3. Describe the basic structure of Hawaiian volcanoes
4. Discuss the likelihood of an eruption or lava flows in their region and potential environmental effects

## **Activity:**

### **Volcano Shapes I (Grades K-3)**

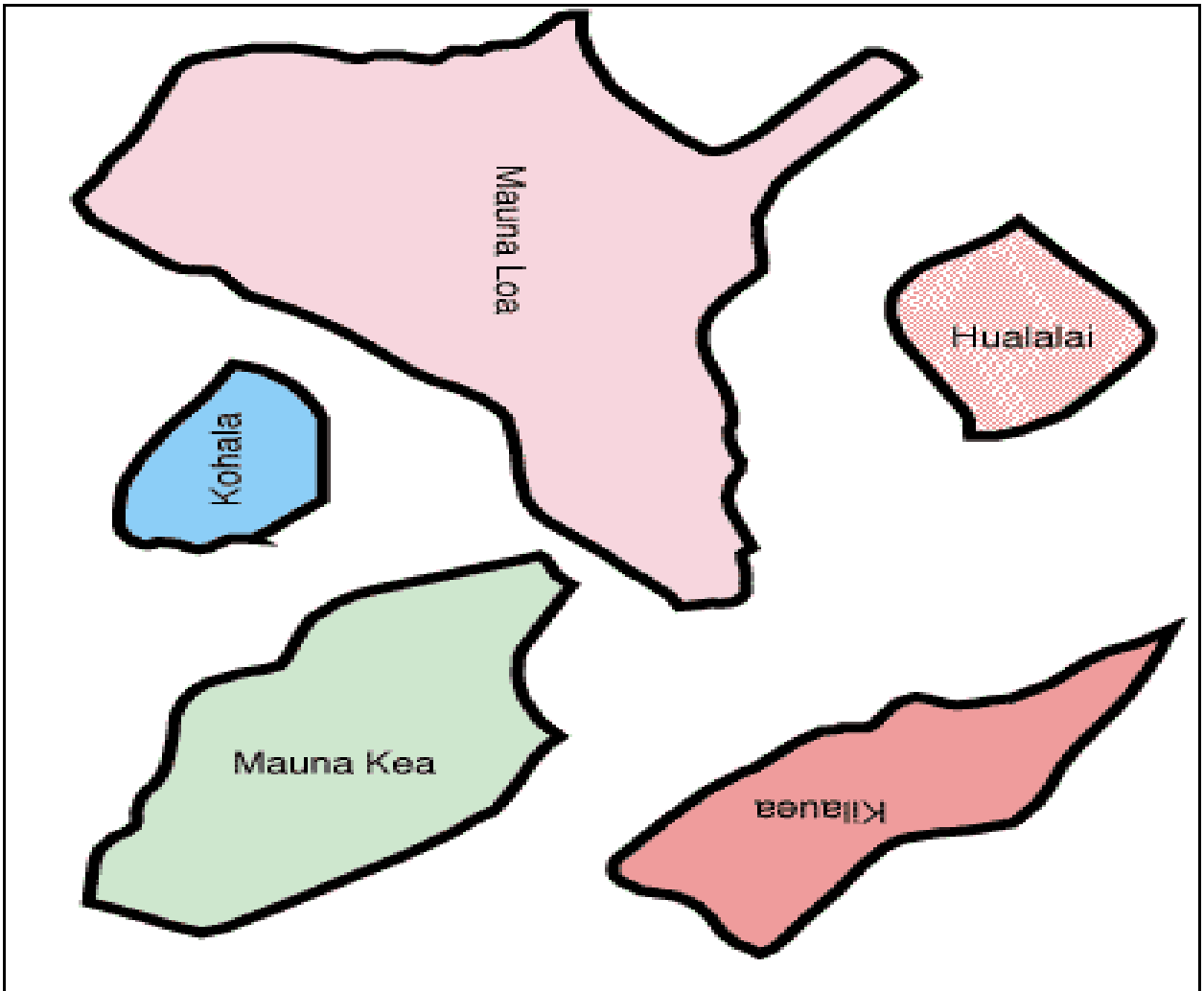
Activity 2 is a puzzle of the Island of Hawaii. The puzzle is in five pieces. Each piece is one of the five volcanoes. The objective of the activity is to introduce the names and relative positions of the volcanoes to the students.

## **Directions:**

1. Print the page and cut along the outline of each volcano.
2. Assemble the Island of Hawaii by placing the volcanoes in their proper location.

## Hawaiian Volcano Shapes

### Puzzle Pieces



Source: [http://volcano.und.nodak.edu/vwdocs/vwlessons/activities/h\\_number2.html](http://volcano.und.nodak.edu/vwdocs/vwlessons/activities/h_number2.html)

## Volcanic Features

1.



2.



3.



### Activity: (Fourth Grade)

1. Define and match these volcanic features with the correct photo above:

- lava fountain
- fissure eruption
- lava pond

2. Students will create an informational pamphlet on the three volcanic features. The learner will describe the physical characteristics of each feature using various classroom resources (web, books, information from video, encyclopedia). Students will then use the pictures to cut out and label with each identifying brief description they have researched on each volcanic feature.

### Challenge Questions:

1. Use the picture to describe the effects and damages caused by the volcanic eruption. How do you think life living near this volcano was affected?
2. Draw a picture of what this area might have looked like before the eruption. Use hints from the picture to guess what this area might have been. (hint: parking lot sign)



### Responses:

1. Encourage students to brainstorm many ways that the area was affected by the volcanic eruption. Engage students' creative thinking by prompting them to think about the area they live in. What would your neighborhood look like? Imagine the parking lot at their local store (use specific examples that are in your area)? Imagine what would happen to all of the trees and ground covering (or grass)?
2. Share the photo with the students. Then, as a class brainstorm several possible things that this picture could be showing using the clues provided in the image. Create a class list of the students' responses either on the board, large poster board, or art paper. Be sure to make the list visible to the students, especially the younger grade levels, as they create their illustrations of what they think the area was prior to the eruption.