My NASA Data - Mini Lesson/Activity

What is a Volcano?

Grade Band

- 3-5
- 6-8

Time

- 30 minutes

Overview

Compare pictures of different volcanoes. Then visit NASA's Space Place to learn about volcanoes and answer questions about volcanic eruptions.

Student Directions

Steps

1. Follow your instructor's directions to work alone or in groups. Check with your instructor on how to submit answers.

2. Examine the images and answer the questions.

Lava fountain at Kīlauea Volcano, Hawai`i. Credit: J.D Griggs, USGS

Image 1: Lava fountain at Kilauea Volcano, Hawai'i.
Image Credit: J.D. Griggs, USGS
https://mynasadata.larc.nasa.gov/sites/default/files/inline-images/fire%20eruption_1.PNG

1. Look at Image 1. What did you see in the first volcano image?

This photograph shows an eruption of Mount St. Helens in Washington in July 1980. This eruption sent ash 6 to 11 miles (10-18 kilometers) into the air, and was visible in Seattle, Washington, 100 miles (160 kilometers) to the north. Credit: Mike Doukas, USGS

Image 2: Mount Saint Helens eruption, July 1980
Image Credit: Mike Doukas, USGS
https://mynasadata.larc.nasa.gov/sites/default/files/inline-images/Mount%20St%20Helens.PNG

2. Look at Image 2. What did you see in the second volcano image?

Lava bubbles up from Kīlauea Volcano in Hawai'i Volcanoes National Park. Credit: Scott Horvath, USGS.

Image 3: Lava bubbles up from Kilauea Volcano in Hawai'i
Image Credit: Scott Horvath, USGS
https://mynasadata.larc.nasa.gov/sites/default/files/inline-images/Lave%20Bubbles.PNG

3. Look at Image 3. What did you see in the third volcano image?
4. How are the three images different?
5. How are the three images similar?

3. Review the introductory information provided in "What is a Volcano?" available from NASA's Space Place to answer the following question.

    1. What are three ways magma can reach the surface of Earth?

Sources:

1. What Is a Volcano? (n.d.). NASA Space Place. Retrieved April 28, 2022, from https://spaceplace.nasa.gov/volcanoes2/en/

Teacher Note

Teachers, these mini lessons/student activities are perfect "warm up" tasks that can be used as a hook, bell ringer, exit slip, etc. They take less than a class period to complete. Learn more on the "My NASA Data What are Mini Lessons?" page.

Teachers who are interested in receiving the answer key, please complete the Teacher Key Request and Verification Form. We verify that requestors are teachers prior to sending access to the answer keys as we've had many students try to pass as teachers to gain access.

NGSS Three Dimensional Learning

NGSS Disciplinary Core Ideas

- ESS2A: Earth Materials and Systems
- ESS2B: Plate Tectonics and Large-Scale Systems

Crosscutting Concepts

- Cause and Effect

Science and Engineering Practices

- Analyzing and Interpreting Data

Document Resources

- What are Volcanoes? Images