

## Earth Science Volcanoes

In Hawaii, there is an active volcano named Kilauea (*kill-a-way-a*). It is one of the most active volcanoes in the world.

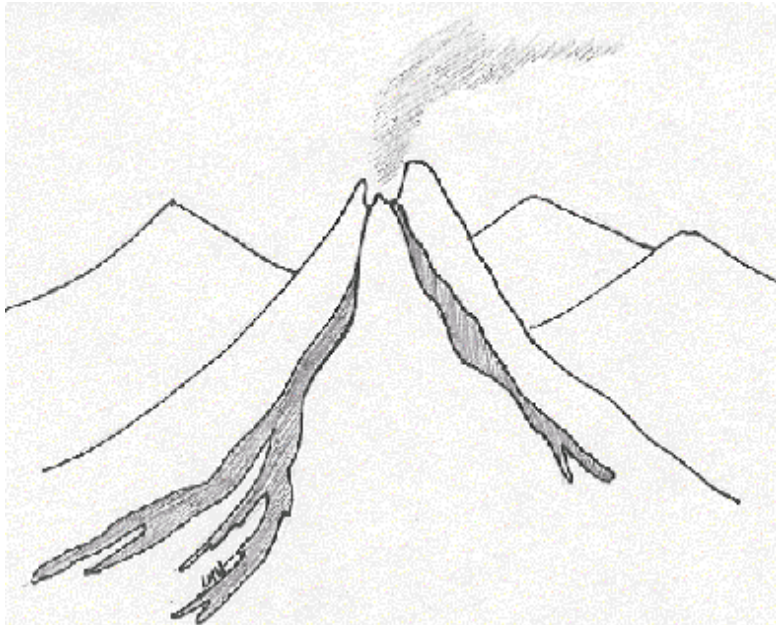


Illustration by Lynn M. Hanousek

When plates in the Earth spread apart, **molten**<sup>1</sup> **lava**<sup>2</sup> comes up from the planet's inner layers. It then spits out of the mouth of the volcano. Lava is very hot. It is 10 times as hot as boiling water. If you stand too close to flowing lava, your eyelashes and eyebrows will instantly burn off.

Lava **spews**<sup>3</sup> out of a volcano. Sometimes it shoots high up into the air. Lava rivers quickly form and travel down the sides of the volcano. They are a grave danger to those who live on or around the volcano. Lava sets trees and houses on fire. If the flow is fast, people can die if they don't get out of the way in time.

Kilauea is a special volcano because it's on what used to be a small island. As lava rivers run into the ocean, it cools, hardens and becomes earth,

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<sup>1</sup> **molten** - melted

<sup>2</sup> **lava** – molten rock that comes from a volcano

<sup>3</sup> **spews** – to spit forth

**expanding**<sup>4</sup> the size of the island. In fact, all Hawaiian Islands were formed from the eruption of volcanoes.

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<sup>4</sup> **expand** – to get bigger

Name: \_\_\_\_\_ Date: \_\_\_\_\_

1. Kilauea is special because

- a. it is the most active volcano on Earth.
- b. it can burn off your eyelashes and eyebrows.
- c. it created all of the Hawaiian Islands.
- d. it creates new earth, making the island grow in size.

2. Volcano eruptions are caused by

- a. growing islands.
- b. underground lava rivers.
- c. moving plates underground.
- d. the Earth's core exploding.

3. Based on the passage, what does *grave* mean?

- a. Serious.
- b. Burial site.
- c. Insignificant.
- d. Scary.

4. Why are volcanoes so dangerous?

- a. Because you can lose your eyelashes and eyebrows.
- b. Because they pollute the ocean.
- c. Because they can burn down trees.
- d. Because people can die if they don't get out of the way in time.

5. How big was the island that Kilauea was located on before the volcano started erupting?

- a. Bigger than now.
- b. Smaller than now.
- c. The same size as now.
- d. It was not an island.

6. How do volcanoes help people? Explain using at least one detail from the passage.

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7. What does it mean if a volcano is “very active”?

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8. The question below is an incomplete sentence. Choose the word that best completes the sentence.

Hawaii was created \_\_\_\_\_ volcanic eruptions.

- a. second
- b. in spite of
- c. before
- d. as a result of

9. Answer the following questions based on the sentence below.

Kilauea, located in Hawaii, is the most active volcano in the world.

What? Kilauea

(is) What? \_\_\_\_\_

(is) Where? \_\_\_\_\_

10. **Vocabulary Word:** expand: to get bigger.

Use the vocabulary word in a sentence: \_\_\_\_\_

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**Teacher Guide and Answers**

**Passage Reading Level:** Lexile 780

**Featured Text Structure:** Descriptive – the writer explains, defines or illustrates a concept or topic

**Passage Summary:** Volcanoes shoot hot lava out from the earth's inner layers. As the lava runs into the ocean it cools and forms land. All of Hawaii was created from volcanic eruptions.

1. Kilauea is special because
  - a. **it is the most active volcano on Earth.**
  - b. it can burn off your eyelashes and eyebrows.
  - c. it created all of the Hawaiian Islands.
  - d. it creates new earth, making the island grow in size.
2. Volcano eruptions are caused by
  - a. growing islands.
  - b. underground lava rivers.
  - c. **moving plates underground.**
  - d. the Earth's core exploding.
3. Based on the passage, what does *grave* mean?
  - a. **Serious.**
  - b. Burial site.
  - c. Insignificant.
  - d. Scary.
4. Why are volcanoes so dangerous?
  - a. Because you can lose your eyelashes and eyebrows.
  - b. Because they pollute the ocean.
  - c. Because they can burn down trees.
  - d. **Because people can die if they don't get out of the way in time.**
5. How big was the island that Kilauea was located on before the volcano started erupting?
  - a. Bigger than now.
  - b. **Smaller than now.**
  - c. The same size as now.
  - d. It was not an island.

6. How do volcanoes help people? Explain using at least one detail from the passage.

**Suggested answer:** Volcanoes can help people by creating new land. Students should refer back to the Hawaiian islands that were created by volcanoes.

7. What does it mean if a volcano is “very active”?

**Suggested answer:** If a volcano is “very active” that means it erupts a lot and shoots out a great deal of lava.

8. The question below is an incomplete sentence. Choose the word that best completes the sentence.

Hawaii was created \_\_\_\_\_ volcanic eruptions.

- a. second
- b. in spite of
- c. before
- d. as a result of**

9. Answer the following questions based on the sentence below.

Kilauea, located in Hawaii, is the most active volcano in the world.

What? Kilauea

(is) What? **the most active volcano in the world**

(is) Where? **Hawaii**

10. **Vocabulary Word:** expand: to get bigger.

Use the vocabulary word in a sentence: answers may vary.