

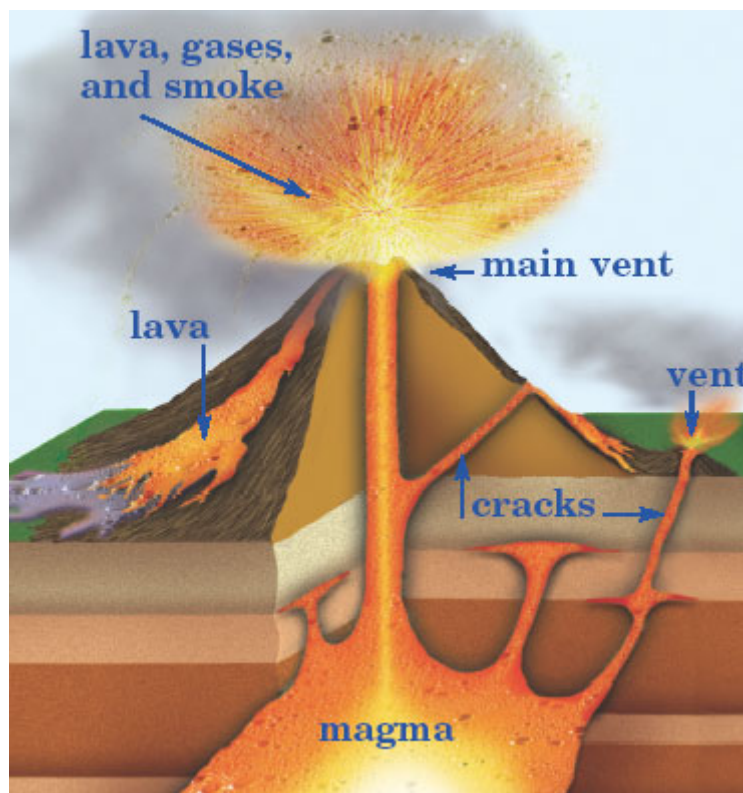
# Volcanoes

## Hot Stuff!

### Look inside a volcano.

Hot liquid rock moves deep underground. A volcano is ready to **erupt**, or explode. Soon, hot liquid rock flows out. That is called **lava**. Lava can move slowly or quickly.

Read how a volcano erupts.



*Jim Sugar/Corbis*

### (1) Hot liquid rock collects.

Hot liquid rock is found deep underground. It is called **magma**. (Magma that flows out of a volcano is called **lava**.)

### (2) The ground shakes.

Magma moves under the volcano. It can cause **earthquakes**. An earthquake is a strong, shaking movement of the ground. Rocks break apart and form cracks in the volcano.

**(3) Magma rises.**

Magma travels along the cracks deep inside the volcano. Some cracks go all the way to the outside of the volcano. Those openings are called **vents**.

**(4) The volcano erupts!**

Lava comes out the top of the volcano. The top is called the **main vent**. Sometimes, gases and smoke burst out too.

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

**Directions:** Answer the following four questions based on the information in the passage.

1. According to the article, what is the first step that leads to a volcano erupting?

2. As shown in the picture in the article, what are the six main parts of a volcano?

3. What is the sequence of events that leads to a volcano erupting after the magma collects?

4. What is this passage mostly about?

**Directions:** Please read the sentence below and then write the word or phrase that best answers the questions. The first answer has been provided for you.

*Lava comes out of a volcano through the main vent during an eruption.*

What? lava

**5.** (does) What?

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**6.** When?

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**7.** Where?

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

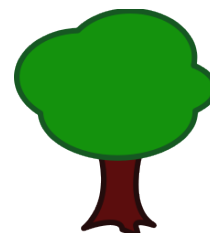
Hot liquid rock is known as magma when inside a volcano, \_\_\_\_\_ it is called lava once it comes out.

- A but
- B because
- C so

**Directions:** Read the vocabulary word and definition below. Then answer questions 9 and 10.

Vocabulary Word: **erupt** (e · rupt): to explode.

9. Read the sentences below and underline all forms of the word **erupt**.
- a. For the science fair, the girl wanted to make a model volcano erupt, so she mixed vinegar and baking soda together to create a small explosion.
  - b. After the funny joke, laughter erupted in the crowd.
  - c. When the basketball team scored, its fans erupted in cheers.
  - d. Over 1,500 years ago, a Roman town was destroyed when a nearby volcano erupted.
  - e. The forest was very dry, and a tree erupted in flames when lightning struck.
10. Which image shows something that is NOT erupting?



## Teacher Guide and Answer Key

**Passage Reading Level:** Lexile 420

**Featured Text Structure:** Sequence – the writer provides an order of events or steps in a process

**Passage Summary:** The passage describes the order of events that leads to a volcano erupting. It discusses the four main steps: hot liquid rock collecting, the ground shaking, magma rising, and eruption.

**To the Teacher:** Read the passage aloud to the class [TIP: while reading aloud, show the passage on a whiteboard or give all students a copy of the passage so that they can follow along].

Then, use the text-dependent questions 1-8 to facilitate a whole class discussion to ensure students comprehend the key details from the passage.

Finally, use questions 9-10 to deep-teach one important vocabulary word [TIP: you can use the model provided for teaching additional vocabulary].

1. According to the article, what is the first step that leads to a volcano erupting?  
[Important Detail]

**Suggested answer:** The first step that leads to a volcano erupting is hot liquid rock, or magma, collecting deep underground. [paragraph 1]

2. As shown in the picture in the article, what are the six main parts of a volcano?  
[Important Detail]

**Suggested answer:** The six main parts of a volcano are magma, lava, cracks, the main vent, other vents, and a combination of lava, gases, and smoke.  
[picture]

3. What is the sequence of events that leads to a volcano erupting after the magma collects? [Important Detail]

**Suggested answer:** After the magma collects, it starts to move under the volcano and can cause earthquakes. The earthquakes cause cracks in the volcano. Then the magma travels along the cracks inside the volcano. Some of the magma gets out through openings called vents. Lastly, the volcano erupts when lava comes out of the top through the main vent. [paragraphs 3, 4, 5]

**4.** What is this passage mostly about? [Main Idea]

**Suggested answer:** The article is mainly about the four steps leading up to a volcano erupting.

**Directions:** Please read the sentence below and then write the word or phrase that best answers the questions. The first answer has been provided for you.

*Lava comes out of a volcano through the main vent during an eruption.*

What? lava

**5.** (does) What? **comes out of a volcano****6.** When? **during an eruption****7.** Where? **through the main vent****8.** The question below is an incomplete sentence. Choose the word that best completes the sentence.

Hot liquid rock is known as magma when inside a volcano, \_\_\_\_\_ it is called lava once it comes out.

**A but**

**B because**

**C so**

**To the Teacher:** ReadWorks recommends that you teach this vocabulary word to the whole class out loud using the four steps listed below.

Vocabulary Word: **erupt** (e · rupt): to explode.

**Step 1:** Introduce the word

- Teacher writes the word on the board and divides it into syllables: (e · rupt)
- Teacher says: "This word is erupt. What is the word?" [All students reply together out loud: "erupt."]

**Step 2:** Provide a child-friendly definition

- Teacher says: "Erupt means to explode."

- b. Teacher says: "The word erupt is used when talking about something exploding or bursting. In this passage, the author discusses how a volcano erupts when lava explodes or comes out of the volcano into the air."
- c. Teacher says: "What is the word?" [All students reply together out loud: "erupt."]

**Step 3:** Practice the word

Teacher provides examples and additional opportunities to repeat the word. Read the first sentence out loud to your students. Begin reading it again and when you come to the vocabulary word prompt students to say the vocabulary word out loud. Then, finish reading the sentence out loud to your students.

**Directions:** Read the vocabulary word and definition below. Then answer questions 9 and 10.

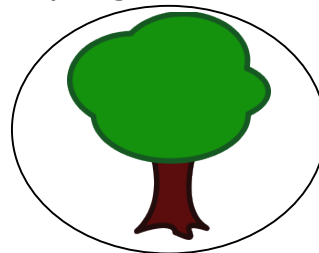
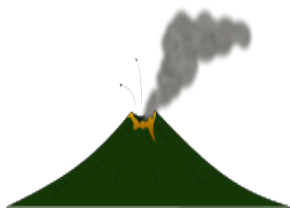
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- a. For the science fair, the girl wanted to make a model volcano erupt, so she mixed vinegar and baking soda together to create a small explosion.
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- e. The forest was very dry, and a tree erupted in flames when lighting struck.

**Step 4:** Check for student understanding

**To the Teacher:** This step can be completed as a whole class activity or as an independent practice.

10. Which image shows something that is NOT erupting?



*Suggested Additional Vocabulary:* lava, magma, earthquake, vent