Read the short story and answer each question.

Can We Predict Volcanoes?

Volcanoes are one of Earth's most powerful natural forces. They can destroy entire towns—but scientists are getting better at predicting when they might erupt.

Most volcanoes don't explode without warning. In fact, they often "talk" before they erupt. Scientists called *volcanologists* study signs like small earthquakes, rising gas levels, or swelling ground. These clues help them guess when magma, the hot melted rock beneath the surface, is about to burst out.

For example, before Mount Pinatubo erupted in the Philippines in 1991, scientists noticed a sharp rise in earthquakes and sulfur gas. Their warnings helped evacuate over 60,000 people—and saved thousands of lives.

Volcano prediction isn't perfect. Some volcanoes give little warning or erupt in unexpected ways. That's why volcanologists use multiple sources of information, including satellite images, seismographs, and gas sensors. These tools work together to help scientists make the best possible guess.

Today, technology is improving volcano monitoring around the world. Some volcanoes even have live cameras and drones watching them! In places like Iceland and Japan, early warning systems alert nearby communities so people can escape before it's too late.

We may never predict eruptions with 100% accuracy—but thanks to science, we're getting closer. Every new eruption teaches us more about the Earth's powerful inner forces.

Name: _____

Can We Predict Volcanoes?

1. How did scientists know Mount Pinatubo was going to erupt?

  A. They saw smoke coming from the volcano.

  B. Animals started running away.

  C. They noticed earthquakes and rising sulfur gas levels.

  D. It had erupted exactly 100 years before.

2. Why do scientists use multiple tools to predict eruptions?

  A. Because they are doing science experiments

  B. Because volcanoes are not always predictable

  C. Because the government requires it

  D. Because magma is too hot to study up close

3. Fill in the blank:

Bees create wax from special _____ in their bodies, then shape it into hexagons for the hive.

4. How do early warning systems help keep people safe from volcanic eruptions?

_____

_____

_____

5. What are some clues that a volcano might be about to erupt?

_____

_____

_____

Parent and Teacher Guide

Guide Reading Level: U
Lexile Level: 925L-1075L
Grade Level: 5th Grade, Middle of the Year
Genre: Informational Text / Earth Science

Introducing the Text

"Today's text explores how scientists use different sources and tools to predict volcanic eruptions. As we read, we'll focus on how combining information helps solve problems efficiently—just like real volcanologists do."

Vocabulary: volcano, magma, evacuate, seismograph, sulfur

Before Reading Discussion Questions

1. Have you ever learned about a volcanic eruption in history?
2. What do you think scientists need to know to predict a volcano?
3. Why might predicting volcanoes be hard?

During Reading Discussion Questions

1. What signs do scientists look for before a volcano erupts?
2. Why did scientists warn people before Mount Pinatubo erupted?
3. What tools help scientists monitor volcanoes today?

After Reading Discussion Questions

1. How does this article show that science can save lives?
2. If you were a volcanologist, what tool would you want to use?
3. What other natural disasters do you think scientists try to predict?

Activity Idea

Have students create an illustrated volcano "warning poster" that lists three signs of an eruption and three tools volcanologists use. They can include visuals like shaking ground, rising gases, and maps or satellites. Post the posters in a "volcano safety" gallery walk for students to view each other's ideas.