Name: Date: Score: / 6

Volcanoes of the Ring of Fire: Comprehension

Nonfiction: Science · about 245 words

Read the passage. Then answer each question. Circle the best answer or write your answer on the lines.

🔥 Volcanoes of the Ring of Fire

Around the edges of the Pacific Ocean lies a horseshoe-shaped zone about 25,000 miles long called the Ring of Fire. It contains about 75 percent of the world's active and dormant volcanoes, and about 90 percent of the world's earthquakes happen along it.

The Ring of Fire exists because of plate tectonics. Earth's crust is broken into giant plates that slowly move. Around the Pacific, many oceanic plates are sliding beneath other plates in a process called subduction. As a plate sinks into the hot mantle, it releases water that helps nearby rock melt. The melted rock, or magma, rises toward the surface and can erupt through volcanoes. The grinding of plates also causes earthquakes.

The Ring of Fire passes through many countries, including Japan, Indonesia, Chile, and New Zealand. In the United States, it runs through Alaska, Washington, Oregon, and California. Alaska alone has more than 50 volcanoes that have been active in recorded history.

One of the most famous American eruptions happened at Mount St. Helens in Washington. On May 18, 1980, an earthquake triggered a massive landslide on the mountain's north side. The volcano exploded sideways, flattening forests for miles. Ash rose about 15 miles into the sky and drifted across eleven states. The eruption blew about 1,300 feet off the top of the mountain.

Scientists called volcanologists monitor the Ring of Fire using seismometers, satellites, and gas sensors. Their warnings help people stay safe when a volcano shows signs of waking up.

1. **Main idea:** What is this passage mostly about?

   A. how to climb a volcano B. why the Pacific Ocean is large C. the history of Japan

   D. what the Ring of Fire is and why it has so many volcanoes and earthquakes

2. **Detail:** What shape is the Ring of Fire?

   A. a perfect circle B. a straight line C. a horseshoe D. a square

3. **Vocabulary:** Subduction is...

   A. when two plates pull apart B. when ash falls C. when one plate slides beneath another D. when magma cools

4. **Detail:** Which U.S. state has more than 50 volcanoes active in recorded history?

   A. Alaska B. Ohio C. Texas D. Florida

5. **Detail:** What triggered the 1980 eruption of Mount St. Helens?

   A. a lightning strike B. people digging C. heavy rain D. an earthquake that caused a massive landslide

6. **Inference:** Why is it important for volcanologists to monitor volcanoes?

ANSWER KEY

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   Their warnings help people stay safe when a volcano may erupt.