

Name: _____ Date: _____

Uncharted: Plate Tectonics and Earthquake Survival - 5th Grade

Seismic wave analysis, tectonic boundary mechanics, and oceanic trench formation — empower young geologists to map the forces reshaping our planet's crust.

1. Imagine you are exploring the bottom of the ocean and find a deep, narrow canyon called the Mariana Trench. What is happening to the Earth's crust here?

- A. Two plates are sliding sideways past each other.
- B. One plate is sinking beneath another into the mantle.
- C. Magma is rising to create brand new seafloor.
- D. The plates are frozen and have stopped moving entirely.

2. Scientists use a tool called a _____ to record the vibrations and shaking caused by an earthquake.

- A. Thermometer
- B. Barometer
- C. Seismograph
- D. Anemometer

3. True or False: Most of the world's active volcanoes and frequent earthquakes happen along the edges of the Pacific Ocean in an area called the Ring of Fire.

- A. True
- B. False

4. Deep inside the Earth, rock is so hot that it melts into a thick liquid. What is this underground liquid rock called?

- A. Lava
- B. Magma
- C. Basalt
- D. Sediment

5. True or False: Tectonic plates move very quickly, traveling about the same speed as a slow-moving car.

- A. True
- B. False

6. When tectonic plates move, they often get stuck due to friction. When they finally snap loose, the sudden release of energy is called an _____.

- A. Avalanche
- B. Earthquake
- C. Erosion
- D. Hurricane

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7. Which type of volcano is built from many layers of cooled lava and ash, often forming a tall, majestic peak like Mount Fuji in Japan?

- A. Shield Volcano
- B. Cinder Cone Volcano
- C. Composite (Stratovolcano)
- D. Fissure Vent

8. The very top layer of the Earth, which includes the continents and the ocean floor, is known as the _____.

- A. Inner Core
- B. Outer Core
- C. Mantle
- D. Crust

9. In 1963, a volcanic eruption in the ocean near Iceland created a brand new island called Surtsey. This happened because plates were pulling apart. What is this type of boundary called?

- A. Convergent Boundary
- B. Divergent Boundary
- C. Transform Boundary
- D. Fossil Boundary

10. True or False: Large mountains, such as the Alps in Europe, are often formed when two continental plates crash into each other and push the land upward.

- A. True
- B. False