

Informational Reading: Cause & Effect of Earthquakes



Name: _____ Date: _____

Read the informational text on tectonic plate motion and answer the questions on cause and effect.

Tremors Beneath the Crust

This is an original practice passage, not a reproduction of a primary source. Read the answer explanations as interpretations of the provided text.

Earth's outer shell is divided into massive slabs of rock called tectonic plates that move over hotter, mostly solid mantle that can deform slowly. Because these plates move continuously in different directions, friction causes them to lock together at their jagged boundaries, called fault lines.

Over decades or centuries, tremendous mechanical stress builds up along locked faults. Consequently, when the stress exceeds the strength of the rock, the plates abruptly slip. This sudden violent fracture releases immense kinetic energy in the form of seismic waves that ripple through the planet's crust, producing the shaking we experience as an earthquake.

1. According to the passage, what is the initial CAUSE of stress building up along fault lines?
 - A. Continuous plate motion encountering friction at jagged boundaries.
 - B. Heavy rainfall soaking through the crust.
 - C. Ocean tides pulling on coastal beaches.
 - D. Extreme cold temperatures freezing surface rocks.

2. What is the direct EFFECT when the built-up stress finally exceeds the strength of the rock?
 - A. The plates stop moving forever.
 - B. The plates abruptly slip, releasing energy as seismic waves.
 - C. The crust immediately turns into liquid magma.
 - D. Clouds form in the upper atmosphere.