Name: _____ **Date:** _____

Answer Key: Pizza Plate Tectonics: A 7th Grade Pie-Slice Quiz

Succumb to the crust's secrets by mapping magma motions and identifying earthquake epicenters across our shifting planetary toppings.

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1. Which layer of the Earth acts like a 'conveyor belt' to move the tectonic plates above it?

Answer: B) The asthenosphere

The asthenosphere is the semi-fluid layer of the mantle that allows the rigid lithospheric plates to slide and move due to convection currents.

2. The Ring of Fire is a major area in the basin of the Atlantic Ocean where many earthquakes and volcanic eruptions occur.

Answer: B) False

The Ring of Fire is actually located around the edges of the Pacific Ocean, not the Atlantic Ocean.

3. When two continental plates collide at a convergent boundary, the crust crumples upward to form _____.

Answer: C) Folded mountains

Unlike oceanic crust, continental crust is too light to subduct, so it pushes upward to create massive mountain ranges like the Alps.

4. What is the name of the instrument used by scientists to record the vibrations caused by an earthquake?

Answer: B) Seismograph

A seismograph (or seismometer) detects and records the ground motion caused by seismic waves during an earthquake.

5. Magma that reaches the Earth's surface through a volcanic vent is officially called _____.

Answer: D) Lava

Once molten rock leaves the interior of the Earth and reaches the surface, its name changes from magma to lava.

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6. Large waves called tsunamis can be triggered by underwater earthquakes at subduction zones.

Answer: A) True

When the seafloor abruptly shifts during an earthquake, it displaces a massive amount of water, creating a tsunami wave.

7. A specific location on Earth's surface directly above where an earthquake starts underground is called the:

Answer: C) Epicenter

The epicenter is the point on the surface, while the 'focus' or 'hypocenter' is the actual underground origin of the quake.

8. The _____ is a scale used to measure the amount of energy released by an earthquake based on its magnitude.

Answer: A) Richter scale

The Richter scale (and the modern Moment Magnitude Scale) measures the strength or magnitude of seismic energy.

9. Most volcanoes are found in the middle of tectonic plates rather than at the boundaries.

Answer: B) False

While 'hotspots' exist in the middle of plates, the vast majority of volcanic activity occurs along plate boundaries.

10. When two plates slide horizontally past each other, like at a transform boundary, what is the most common result?

Answer: B) Earthquakes

Transform boundaries usually lack the magma of divergent zones or the lifting of convergent zones, so they primarily release energy through earthquakes.