Name: _____ **Date:** _____

Answer Key: Moving Earth Quiz for 4th Grade

Lithospheric mapping and tectonic forces. See how shifting plates create the mountains and valleys that shape our world.

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1. Imagine you are exploring the Ring of Fire in the Pacific Ocean. Why are there so many volcanoes in this specific area?

Answer: B) Oceanic plates are sliding under continental plates, creating magma.

At subduction zones, one plate slides beneath another, causing rock to melt into magma and rise to form volcanoes.

2. The Earth's outer shell, called the lithosphere, is made of one solid piece of rock that never moves.

Answer: B) False

The lithosphere is actually broken into several large and small pieces called tectonic plates that are constantly in motion.

3. When two plates move away from each other at a ____ boundary, like in the middle of the Atlantic Ocean, new seafloor is created.

Answer: C) Divergent

Divergent boundaries occur where plates pull apart, allowing magma to rise and cool, forming new crust.

4. Which instrument do geologists use to measure the strength and vibrations of an earthquake?

Answer: B) Seismograph

A seismograph records the seismic waves produced by an earthquake to help scientists determine its size and location.

5. The ____ of an earthquake is the specific point on the Earth's surface directly above where the underground rock first broke.

Answer: A) Epicenter

The epicenter is the spot on the surface directly above the focus, which is where the earthquake starts underground.

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6. Earthquakes can happen far away from plate boundaries, though they are much more common at the edges of plates.

Answer: A) True

While most quakes happen at boundaries, 'intraplate' earthquakes can occur when internal stresses cause old faults to shift.

7. What happens when two continental plates of the same density collide at a convergent boundary?

Answer: C) They crumble and push upward to form tall mountains.

Because continental crust is buoyant, the plates smash together and fold upward, creating massive mountain ranges like the Alps.

8. The hot, melted rock that stays underground is called magma, but once it erupts onto the surface, it is known as ____.

Answer: C) Lava

Lava is the term used specifically for molten rock that has breached the Earth's surface.

9. A tsunami is a giant ocean wave often caused by an underwater earthquake.

Answer: A) True

When the seafloor abruptly shifts during an earthquake, it displaces a huge amount of water, creating powerful waves.

10. If you find a 'shield volcano' with broad, sloping sides like a warrior's shield, what kind of eruption likely formed it?

Answer: B) Thin, runny lava that flows easily over long distances.

Shield volcanoes are built by thin lava that flows out in all directions, creating a wide, gentle slope rather than a steep cone.