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Stressed Out!
Earthquakes, Waves, and Epicenters

Vocabulary Organizer Answer Key

As the class completes the activities of the lesson, develop and record definitions for the following terms related to earthquakes.

Crust: hard and rigid, it is the earth's outermost and thinnest layer.

Mantle: divided into two regions, the upper and lower mantle. This dense layer is made up of hot, semisolid rock, and is located directly below the crust.

Core: made up of two layers, the inner and outer core. The inner core is an extremely hot solid sphere of iron and nickel at the center of the earth. The outer core is the only liquid layer of the earth; a sea of mostly iron and nickel.

Lithosphere: made up of the crust and a bit of mantle; divided into several plates of solid rock that hold the continents and oceans.

Asthenosphere: hot, semiliquid, malleable zone of the mantle. More flexible than the asthenosphere.

Boundary: the border between two plates.

Convergent Boundary: a boundary where two plates push towards each other.

Divergent Boundary: a boundary where two plates are moving apart from each other.

Transform Boundary: a boundary where plates move past each other.

Fault: a crack or fracture in the earth's crust.

Focus: the zone within the earth where the displacement or break of rock in an earthquake first occurs.

Epicenter: the location on the earth's surface directly above the focus of an earthquake.

P waves	S waves
AKA: **P**rimary waves	AKA: **S**econdary Wave
Travel: Faster	Travel: **S**lower
Wave Direction: **P**ush-**p**ull, or compression	Wave Direction: **S**ide to **s**ide, or **s**hear
Particle Motion: Forward and Backward	Particle Motion: **S**ideways or perpendicular

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	to direction of wave travel particle motion
Travels through: **P**ractically anything	Travels through: **S**olids only
Diagram: (student diagram goes here)	Diagram: (student diagram goes here)

L-Wave: earthquake waves that travel through the more flexible rock on the earth's surface. Of all earthquake waves, surface waves cause the most damage.

Seismometer: instruments that monitor the earth's movement, and record earthquake waves.

Seismograph: the paper or digital record created by a seismometer.

S-P Interval: the time that elapses between the arrival of P waves and S waves on a seismograph.