

Vocabulary: Unit 5: Earthquakes and Volcanoes

<b>earthquake</b>	Sudden ground movement caused by the sudden release of energy stored in rocks.
<b>elastic rebound theory</b>	As stress is applied to rocks, they store elastic energy and eventually fracture or spring back into place, releasing the stored energy as seismic waves.
<b>seismic waves</b>	Waves of energy that travel through the Earth's layers, and are a result of an earthquake.
<b>focus</b>	The initial point below the Earth's surface where the rocks rupture in the crust during an earthquake.
<b>epicenter</b>	The point on the land surface that is directly above the focus.
<b>Pacific Ring of Fire</b>	An extensive zone of volcanic and seismic activity that coincides roughly with the borders of the Pacific Ocean.
<b>amplitude</b>	Height of a wave; this can be measured from a center line to the top of the crest, or to the bottom of the trough.
<b>crest</b>	Highest point of a wave.
<b>trough</b>	Lowest point of a wave.
<b>wavelength</b>	Horizontal distance between two waves, as measured from crest to crest or trough to trough.
<b>body wave</b>	Type of seismic wave that travels through the body of a planet; body waves include primary waves and secondary waves.
<b>P-wave (Primary wave)</b>	Fastest type of body wave, capable of traveling through solids, liquids, and gases.
<b>S-wave (Secondary wave)</b>	Slower moving, transverse body wave that can only travel through solids.
<b>surface wave</b>	Seismic wave that travels around the ground surface; the two types are Love and Rayleigh waves.
<b>Love wave</b>	Surface wave that has a side-to-side motion, much like a slithering snake.
<b>Rayleigh wave</b>	Surface wave that has a rolling motion.
<b>tsunami</b>	Enormous ocean waves caused by the sharp jolt of an underwater earthquake.
<b>seismograph</b>	A n instrument that measures and records details of earthquakes, such as force and duration.
<b>seismogram</b>	A printed record produced by a seismograph.
<b>seismometer</b>	An all-digital version of a seismograph.
<b>Mercalli Scale</b>	A scale that measures earthquakes based on the amount of damage done during the quake.
<b>Richter Scale</b>	A scale that measures earthquakes based on the amount of energy released by the greatest jolt of rock.
<b>Moment Magnitude Scale</b>	A scale that measures earthquakes based on the amount of energy released during the entire quake.
<b>foreshocks</b>	Small quakes that sometimes occur a few seconds to a few weeks before a major quake.
<b>volcano</b>	A vent from which the material from a magma chamber escapes.
<b>active volcano</b>	A volcano that is currently erupting or showing signs of erupting soon.
<b>dormant volcano</b>	A volcano with no current activity, but has erupted recently.
<b>extinct volcano</b>	A volcano with no activity for some time, and will probably not erupt again.
<b>mafic (magma, lava, rocks)</b>	An earth material that is low in silica and contains dark, magnesium- and iron-rich minerals.
<b>felsic (magma, lava, rocks)</b>	An earth material that is high in silica and contains light minerals such as quartz and feldspar.
<b>viscosity</b>	A liquid's resistance to flow.

<b>tephra</b>	Rock material ejected from the vent during a volcanic eruption.
<b>pyroclastic material</b>	The combination of all materials ejected during a volcanic eruption.
<b>pyroclastic flow</b>	Scorching hot tephra, ash, and gas that speeds down the volcano's slopes at speeds up to 700 km/h (450 mph).
<b>lahar</b>	A volcanic mudflow.
<b>aa</b>	Slightly viscous lava that forms rough, jagged layers.
<b>pahoehoe</b>	Ropy, smooth, low viscosity lava.
<b>pillow lava</b>	Underwater lava flows that cool quickly into spherical rocks; common at mid-ocean ridges.
<b>composite cone</b>	A tall, conical volcano built up by many layers of hardened lava, tephra, and volcanic ash.
<b>shield cone</b>	Volcanic mountain with a broad base and gently sloping sides, made from low viscosity lava flows.
<b>cinder cone</b>	A cone formed around a volcanic vent by fragments of lava thrown out during eruptions.
<b>caldera</b>	A large volcanic crater, typically one formed by a major eruption leading to the collapse of the mouth of the volcano.
<b>mantle plume</b>	An upwelling of unusually hot mantle material.
<b>hotspot</b>	An intraplate magma chamber that develops above a mantle plume.