Unit: 4. FORCES AND FEATURES OF EARTH

VOCABULARY

aftershocks	smaller earthquakes that occur after a major earthquake
andesitic magma	magma that is a mix of basaltic and rhyolitic; eruption may or may not be explosive
anticline	arch-shaped, upward fold in rock
basaltic magma	magma that has low viscosity and low silica and gas content; eruption is non-explosive
batholith	a large mass of hardened igneous rock beneath all layers of sedimentary rock
body waves	waves that travel through the interior of Earth; there are two types: primary (P) and secondary (S) waves
cartographer	someone who creates maps
cinder cone volcano	volcano formed of volcanic rock and ash; erodes quickly
compass	provides direction of north, east, south, and west
composite volcano	volcano that is tall and steep; formed of lava and volcanic debris
contact line	light, thin line that separates rock units or types on a geologic map
contour interval	the distance between contour lines of elevation
contour lines	lines of equal elevation that display height, shape, and steepness of ground features

convection	process of heat transfer by the circulation or movement of a gas, liquid, or plastic material
correlation spectrometer	instrument used to measure volcanic gases
dike	vertical intrusion of magma between rock layers
elastic rebound	immediate return of deformed rock to its natural shape
epicenter	location on the earth's surface directly over the focus of an earthquake
extrusive	igneous rock that forms on Earth's surface
focus	specific point in the earth where the rock layers along a fault move, producing an earthquake
fold axis	semi-dark line that indicates the ridge of a fold on a geologic map
footwall	block of rock below the slant of a fault
foreshocks	mini-quakes that usually occur before a major earthquake
geologic map	shows locations and types of rocks and other features, like faults and folds
geothermal energy	energy produced from the heat of magma and other volcanic materials
graben	a lower block of rock between two normal faults
guyot	a volcanic island under sea that has been cut off by wave erosion
hachure marks	teeth-like marks on contour lines that indicate a depression or sunken area
hanging wall	block of rock above the slant of a fault
Hawaiian eruption	non-explosive or very mild volcanic eruption
horst	an uplifted block of rock between two normal faults

hot spot	an active area of volcanoes due to a consistent source of magma in the asthenosphere
intrusive	igneous rock that forms in Earth's interior
laccolith	intrusive rock that pushes its way between sedimentary strata in the shape of a dome
lahar	an avalanche of water, mud, and other materials that a volcanic eruption can produce
legend	provides an explanation of lines and symbols given on a map
liquefaction	wet soil behaves like a liquid and is no longer able to support buildings during an earthquake
magnitude	measure of the total amount of energy released during an earthquake
Mercalli intensity scale	scale that measures the effects or severity of an earthquake
moment magnitude scale	newer magnitude scale that measures the amount of moved (displaced) rock along a fault to determine the strength of an earthquake
monocline	a ramp-like fold between flat rock layers at different elevations
normal fault	fault that occurs when two tectonic plates are moving apart from each other; the hanging wall drops relative to the footwall
plinian eruption	the most powerful, explosive type of volcanic eruption
plume	gassy smoke released by a volcano
pyroclastic flow	volcanic flow that contains a high concentration of gases, ash, and small rocks
reverse fault	fault that occurs when two tectonic plates collide; the hanging wall rises relative to the footwall

rhyolitic magma	magma that has a high viscosity and high silica and gas content; eruption tends to be very explosive
Richter scale	scale of magnitude based on the size of seismic waves produced by an earthquake
scale	the ratio of distance represented on a map to distance on Earth
scarp	cliff-like landform created by a normal fault
seamount	an underwater volcano
seismic gaps	areas on active faults where a major earthquake hasn't occurred in a long time
seismograph	instrument used to record and measure vibrations from earthquakes or earth tremors
seismogram	a record of the time and intensity of the energy waves produced by an earthquake
seismology	scientific study of earthquakes
shield volcano	volcano that has tall, broad slopes; formed by repeated, gradual lava flows
sill	horizontal intrusion of magma between rock layers
strike-slip fault	fault that occurs when two tectonic plates are sliding sideways against each other in opposite directions
strombolian eruption	an intermittent explosive volcanic eruption
surface waves	waves that travel on the surface of the earth; there is one type of surface wave: Love (L) waves
syncline	U-shaped, downward fold in rock
tephra	volcanic rock and debris that is blasted from a volcano during an eruption
tiltmeter	instrument used to measure ground swelling

topographic map	also known as a contour map; shows shape, steepness, and height of ground features by using contour lines
triangulation	process used to locate the epicenter of an earthquake
viscosity	ability of a substance to resist flowing
volcanic neck	eroded volcanic feature that formed from magma cooling in the central vent of a volcano