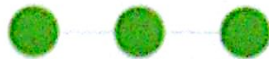


# Earth Processes

## GLOSSARY



- ash** The fine magma dust released from a volcano during an explosive eruption.
- chemical weathering** The breakdown of rocks caused by chemical reactions with other substances; results in a change in the chemical composition of the rocks.
- compression** Pressure exerted toward the center from opposite sides.
- compressional wave** A type of seismic wave that causes rock particles to bump into each other, creating a back-and-forth motion in the direction of the wave; also called P wave.
- continental crust** The portion of Earth's crust that carries the land masses.
- convection current** A circular current created when a portion of a substance is heated and rises, while cooler portions sink.
- convergent boundary** The boundary between colliding crustal plates.
- crater** The circular depression or hole formed by the eruption of a volcano.
- crust** The outermost layer of Earth; contains the continents and the oceans.
- crystal** A solid whose atoms or ions are lined up in organized, repeating patterns.
- deposition** The process by which sediments are dropped or released when the force that is carrying them slows down or stops.
- divergent boundary** The boundary between crustal plates that are moving away from each other.
- dome mountain** A type of mountain formed when a pocket of magma pushes against the layer of crust above it.
- earthquake** Movement of the ground due to the sudden release of stored energy along a fault in Earth's interior.
- epicenter** The point on Earth's surface directly above the focus of an earthquake.
- equator** An imaginary east-west line that circles the globe, located halfway between the North and South Poles; the equator is located at 0° latitude.
- erosion** The process by which particles of weathered rock are carried away by wind, water, or glaciers.
- fault** A crack in Earth's crust along which rock movement occurs.
- fault-block mountain** A section of crust thrust upward between two faults.
- fault zone** A section of Earth's crust containing faults thousands of kilometers long and hundreds of kilometers high.
- focus** The point inside Earth's crust at which an earthquake originates.
- folded mountain** A type of mountain formed when layers of rock are compressed.
- fossil** The remains, impressions, or other evidence of a once-living organism preserved in rock.
- glacier** A huge ice mass that moves very slowly, picking up rocks and soil in its path and depositing them when it melts.
- igneous rocks** Rocks formed when magma cools and hardens.
- inner core** The innermost layer of Earth.



- International Date Line** The imaginary vertical line running from the North to the South Pole, directly opposite the prime meridian; 180° longitude.
- isostasy** The balance, or equilibrium, between the downward force of Earth's crust and the upward force of the mantle.
- latitude** The distance north or south of the equator, measured in degrees.
- lava** Magma that reaches Earth's surface during volcanic eruptions.
- lithosphere** The region of Earth made up of the crust together with the uppermost, solid layer of the mantle.
- longitude** The distance east or west of the prime meridian, measured in degrees.
- magma** Molten rock, found in the mantle and outer core of Earth.
- magnitude** The strength of an earthquake as measured on the Richter scale.
- mantle** The layer of Earth between the outer core and crust.
- mechanical weathering** The physical breakdown of rocks into smaller pieces.
- metamorphic rocks** Rocks that form deep within Earth when existing rocks are subjected to tremendous heat and pressure.
- metamorphism** A change in the makeup of rock brought about by intense pressure and heat.
- mid-ocean ridge** An underwater mountain range located between two continents; where sea-floor spreading takes place.
- mineral** A naturally occurring solid element or compound with specific chemical and physical properties.
- oceanic crust** The portion of Earth's crust beneath the oceans.
- outer core** The layer of Earth located between the inner core and the mantle.
- Pangaea** The name German scientist Alfred Wegener gave to the supercontinent he believed existed before it broke up to form the continents; means "all lands."
- plate** A section of Earth's crust and its corresponding section of the upper mantle.
- prime meridian** An imaginary vertical line running from the North to the South Pole; located at a longitude of 0°.
- Richter scale** A numerical measure of the magnitude of an earthquake, based on a scale from 1 to 10.
- Ring of Fire** The circular pattern of volcanoes and earthquakes located around the edge of the Pacific Ocean.
- rock** A naturally formed solid, usually composed of a mixture of many different minerals that are fused together.
- rock cycle** A cycle describing all the ways in which rocks can be changed from one type to another.
- sea-floor spreading** The formation of new oceanic crust at the mid-ocean ridge.
- sediment** Small particles of soil and rock.
- sedimentary rocks** Rocks formed when layers of sediment are squeezed and cemented together.
- seismic wave** The energy that radiates outward from the focus of an earthquake.
- seismograph** An instrument used to detect and record the movement of the Earth during an earthquake.
- shear wave** A type of seismic wave that causes rock particles to jiggle up and down or side to side at right angles to the wave direction; also called S wave.



**soil** The loose weathered material on Earth's surface in which plants can grow.

**stress** A response to pressure; the effect of high heat or pressure on rocks.

**subduction** The process by which sections of crust collide and the more dense crust sinks below the less dense crust, forming a trench.

**surface wave** A seismic wave that reaches Earth's surface and moves out in all directions from the epicenter.

**theory of continental drift** A theory proposed in 1915 by German scientist Alfred Wegener that states that continents are not stationary but actually move very, very slowly across the face of the Earth.

**theory of plate tectonics** A theory that states that the crust is made up of plates that float on the mantle and are carried by convection currents in the mantle.

**tracing** The squiggly line drawn on the revolving drum of a seismograph.

**transform boundary** The boundary between two crustal plates that are sliding past each other.

**trench** A deep canyon on the ocean floor where subduction occurs.

**vent** A weak area in rock that becomes an opening through which magma can escape.

**volcano** An opening in the Earth's crust through which an eruption of lava, ash, and cinders takes place.

**weathering** The process by which rocks are broken down into smaller pieces by such agents as wind, water, ice, and living things.

**Note:** The Delta Science Reader includes its own glossary of terms.