

Earth Science Definitions

Weathering – The process by which rocks are broken down into small grains and soil

Erosion – The removal and transportation of weathered material

Deposition – The laying down of sediment carried by wind, water, or ice

Compaction – Sediments are deeply buried, placing them under pressure because of the weight of overlying layers

Cementation - New minerals stick the sediment together just like cement

Sedimentary Rock – Formed when sediments accumulate and compact and cement together

Metamorphic Rock – formed by heat and pressure while buried deep below Earth's surface

Igneous Rock – Formed when magma or lava harden

Mineral – A naturally occurring inorganic (non-living) substance

Pangea – Was a super continent. Began to break apart about 175 million years ago.

Continental Drift Theory – Alfred Wegener developed the theory that the continents drift

Sea Floor Spreading – Magma rises on the sea floor causing it to spread. The hot magma rising in the mantle caused the spreading on the sea floor and the large pieces of crust (tectonic plates) to move.

Plate Tectonics – The theory that Earth's outer crust (lithosphere) is divided into several plates that glide over the plastic-like and less ridged asthenosphere (upper mantle)

Convection currents – Transfers energy in the mantle. They cause the hotter magma in the mantle to rise and the cooler magma in the mantle to sink.

Converging Plate Boundary – Plates moving towards/colliding with each other. The two types are collision and subduction.

Diverging Plate Boundary – Plates moving away/apart from each other

Transform Plate Boundary – Plates slip sideways past each other creating earthquakes

Subduction – One plate sinks below another one (usually an ocean plate sinks below a continental plate)

Magma – Molten rock located below the Earth's surface

Lava – Molten rock located above the Earth's surface

Volcano – A cone-shaped mountain or hill which usually has a crater or depression at the summit

Pyroclastic Flow - fast-moving current of hot gas and rock that moves away from a volcano

Hot Spot Volcano – Regions of the mantle that are very hot compared to the surrounding mantle. This creates a mantle plume that eventually breaks through the crust as a volcano.

Fault Line - A fracture or zone of fractures between two blocks of rock

Earthquake – a quick movement along a fault line

Normal Fault – Cause by tension - rocks move away from each other

Reverse Fault – Caused by compression – rocks move toward each other

Strike Slip Fault – Caused by shearing – rocks slide past each other