Earth Processes Vocabulary

**Spheres:**

Asthenosphere-the soft mantle on which the tectonic plates move

Lithosphere-the solid, outer layer of the Earth that consists of the crust, and the rigid upper part of the mantle

Mesosphere-the strong, lower part of the mantle between the asthenosphere and the outer core

Crust-a chemical layer of the Earth above the mantle

Mantle-a chemical layer of the Earth between the crust and the core

Outer Core-the liquid layer of the Earth’s core that lies beneath the mesosphere and surrounds the inner core

Inner Core-the solid, dense center of our planet that is thought to be made of Nickle and Iron

**Structures/Formation:**

Plate Tectonics-the theory that explains how large pieces of the Earth’s outermost layer, called tectonic plates, move and change shape

Tectonic Plate-a block of lithosphere that consists of the crust and the rigid, outermost part of the mantle

Continental Drift-the hypothesis that states that the continents once formed a single landmass called Pangea, broke up, and drifted to their current locations

Compression-stress that occurs when forces act to squeeze an object

Folding-the bending of rock layers due to stress

Subsidence-the sinking of regions of the Earth’s crust to lower elevation (level)

Tension-stress that occurs when forces pull apart an object

Uplift-the rising of regions of the Earth’s crust to higher elevations (levels)

**Processes:**

Earthquake-a shift (movement) in Earth’s crust

Epicenter-the point on Earth’s surface directly above an earthquake’s starting point or focus

Fault-a break in a body of rock along which one block slides relative to another

Focus-the point along a fault at which the first motion of an earthquake occurs (underground)

Convergent Boundary-the boundary formed by the collision of two plates

Divergent Boundary-the boundary between two tectonic plates that are moving away from each other

Transform Boundary-the boundary between tectonic plates that are sliding past each other horizontally

Sea-floor Spreading-the process by which new oceanic lithosphere forms as magma rises toward the surface and solidifies

Seismic Wave-a wave of energy that travels through the Earth, away from an earthquake in all directions

Seismograph-an instrument that records vibrations in the ground and determines the location and strength of an earthquake

Seismology-the study of Earthquakes

Volcano-a vent or fissure (crack)in the Earth’s surface through which magma and gases are expelled (released)