Key Vocabulary – ES 5: The Rock Cycle

Rock – a mixture of minerals, but may also be made of once-living things.

Composition – the minerals that go in to make the rock

Rock Cycle – The way in which Earth’s rock changes and recycles itself over time through plate tectonics, weathering, and erosion

Rock Texture – the size of the particles that make up that rock.

Coarse Grained Texture – being made of large particles

Fine Grained Texture – being made of small particles

Molten Earth Material – A mix of melted minerals

Lava – molted earth material that has erupted to the surface of Earth

Magma – molten earth material that remains under the surface of Earth

Igneous Rock – Rock that has cooled and solidified directly from lava or magma

Intrusive Igneous Rock – rock that has cooled & hardened from magma under Earth’s surface. It has large, coarse-grained texture because it cooled slowly allowing mineral crystals to grow in the rock. Example: Granite

Extrusive Igneous Rock – Rock that has cooled and hardened from lava, foam, or ash on Earth’s surface. These rocks are fine-grained or glassy because they’ve cooled quickly. Examples: Basalt, pumice, obsidian

Metamorphic Rock – rock that has undergone change as a result of heat, pressure, or hot fluids

Foliated Metamorphic Rock – rock that has formed layer or bands (banding) under pressure. Examples: Slate, Schist, & Gneiss

Unfoliated Metamorphic Rock – a metamorphic rock that does not have banding. They are usually the same (homogenous) throughout. Examples: Marble, Quartzite.

Homogenous – same throughout…does not appear to be made of different parts

Heterogeneous – having different parts – color or texture will change in the sample

Parent Rock – rock that made another rock usually by becoming metamorphic. For example: The igneous rock Granite is the parent rock to the metamorphic rock Gneiss. – OR – Parent Rock can refer to the rock that rock fragments came from.

Sediment – small pieces of rock…like sand, silt, or clay

Weathering – the breaking down of rock into sediments

Erosion – the transportation (carrying) of sediments from one location to another by running water, ice, or wind

Deposition – a deposit of sediments…when sediments pile up because they cannot be carried any further

Sedimentary Rock – rock made from the fragments (sediments) of other rocks or rock made from organic material or rock from chemical precipitation

Chemical Precipitation – when solid minerals from a solution…like salt left from the ocean or from a chemical reaction in the water.

Clastic Sedimentary Rock – rock made from the fragments (pieces) of other rocks through compaction and cementing together. Examples: sandstone, conglomerate, & shale

Compaction – packing down

Cementing / Cementation – glue together naturally using water & sediments

Non-Clastic Sedimentary Rock – Sedimentary rock made from chemical precipitation or from organic material. Examples: Limestone, Rock Salt