Rock Cycle

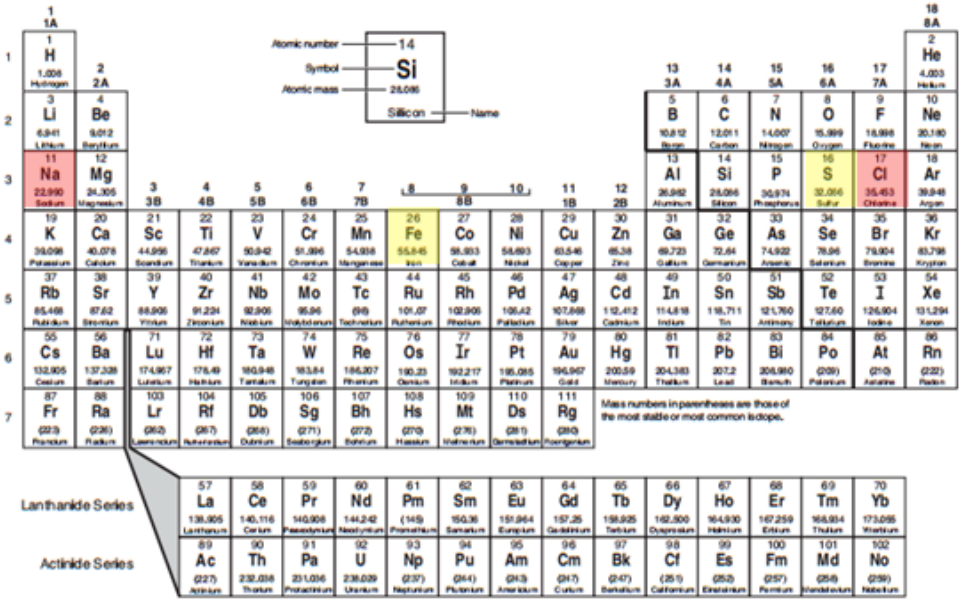
Picture Vocabulary

7.E 6.2 Rock Cycle

Earth's Evolution

Originally, Earth was partly molten, allowing dense metals to sink to its core and less dense material to separate into layers around the core. Over time, many changes have built up and worn down features on Earth's surface.

Mineral Composition



Mineral: **Halite**
(Rock Salt)
Sodium Chloride, **NaCl**

Mineral: **Pyrite**
Iron Sulfide, **FeS_2**

The unique combination of solid elements and compounds that make up a mineral

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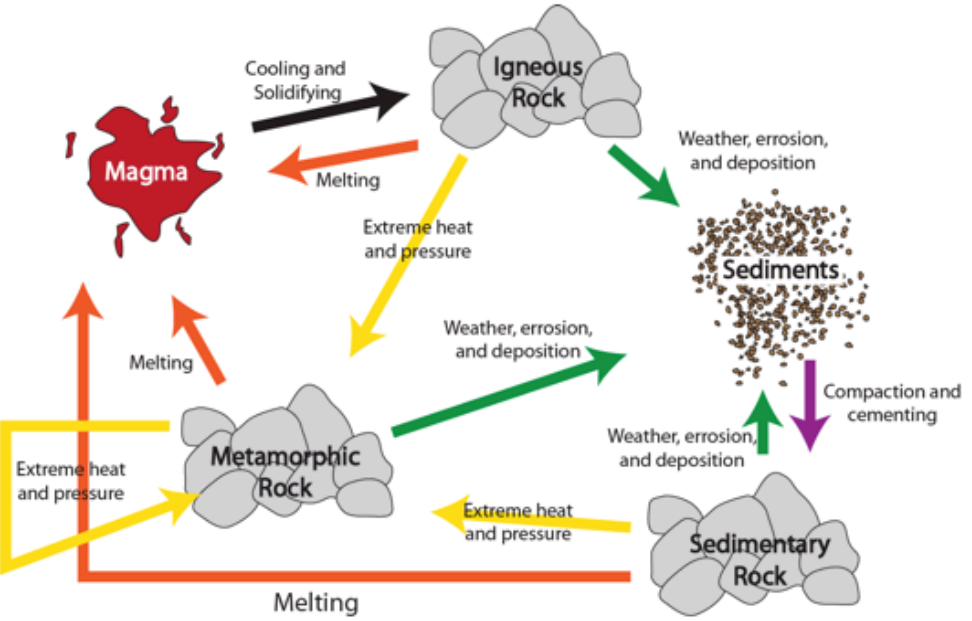


Earth's rocks change from one type into another over time due to various Earth processes. Changes occur in mineral compositions and physical structures.

Igneous Rock

Igneous rock is formed when lava or magma cools and solidifies. Lava cools quickly and forms rocks with small crystals, while magma cools more slowly and forms rocks with larger crystals.

Lava

Molten rock or magma that has reached Earth's surface by volcanic action; characterized by small crystals due to rapid cooling on Earth's surface

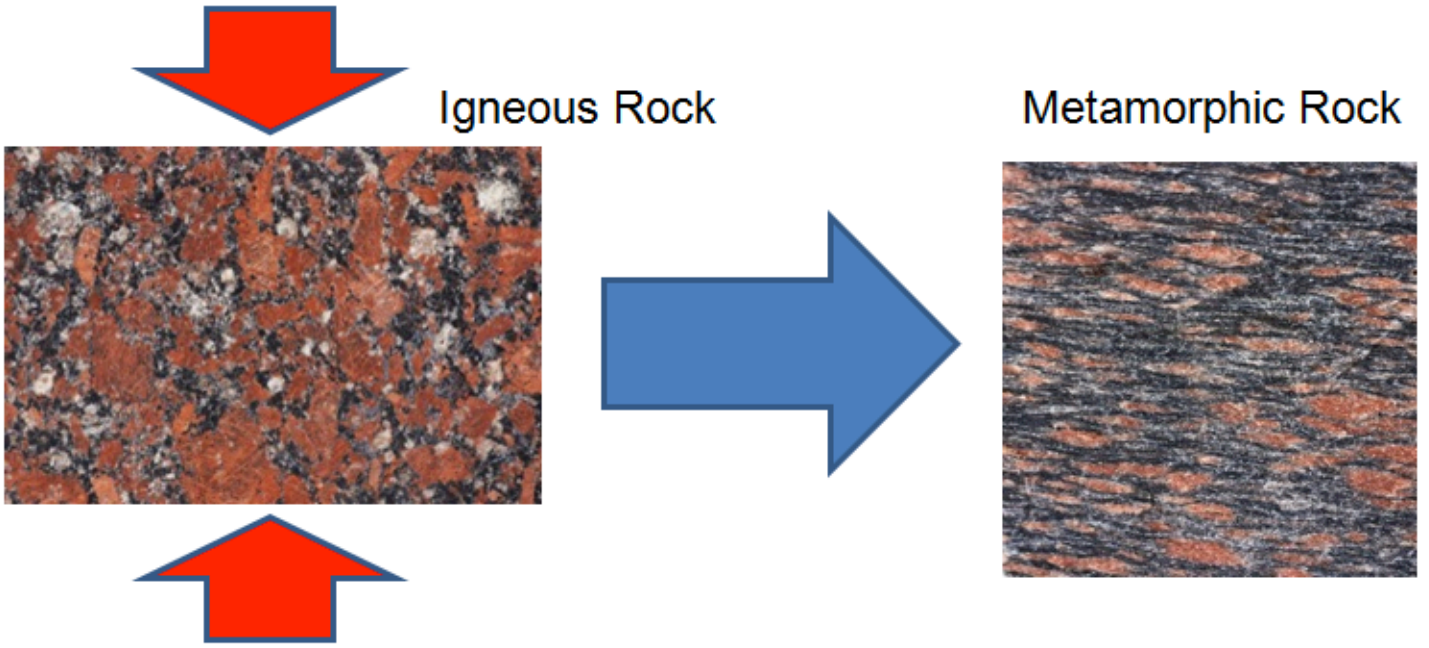
Magma

Melted or molten rock material beneath Earth's surface; cools slowly to form rocks with larger crystals

Metamorphic Rock

Metamorphic rock is formed deep underground where heat and pressure cause existing rocks to be changed in both mineral composition and structural characteristics.

Heat and Pressure

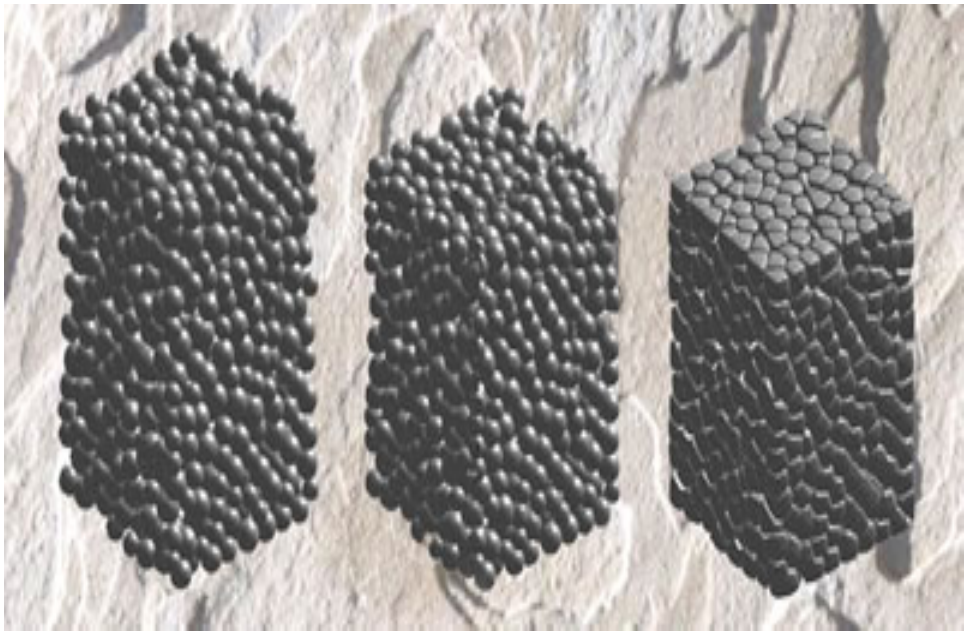


Changing variables due to the weight of overlying rocks, causing changes to rock characteristics and mineral composition, thus forming metamorphic rocks

Sedimentary Rock

Sedimentary rock forms when particles of other rocks are deposited in layers and are compacted (crushed together) and cemented (binding of the sediments).

Compaction

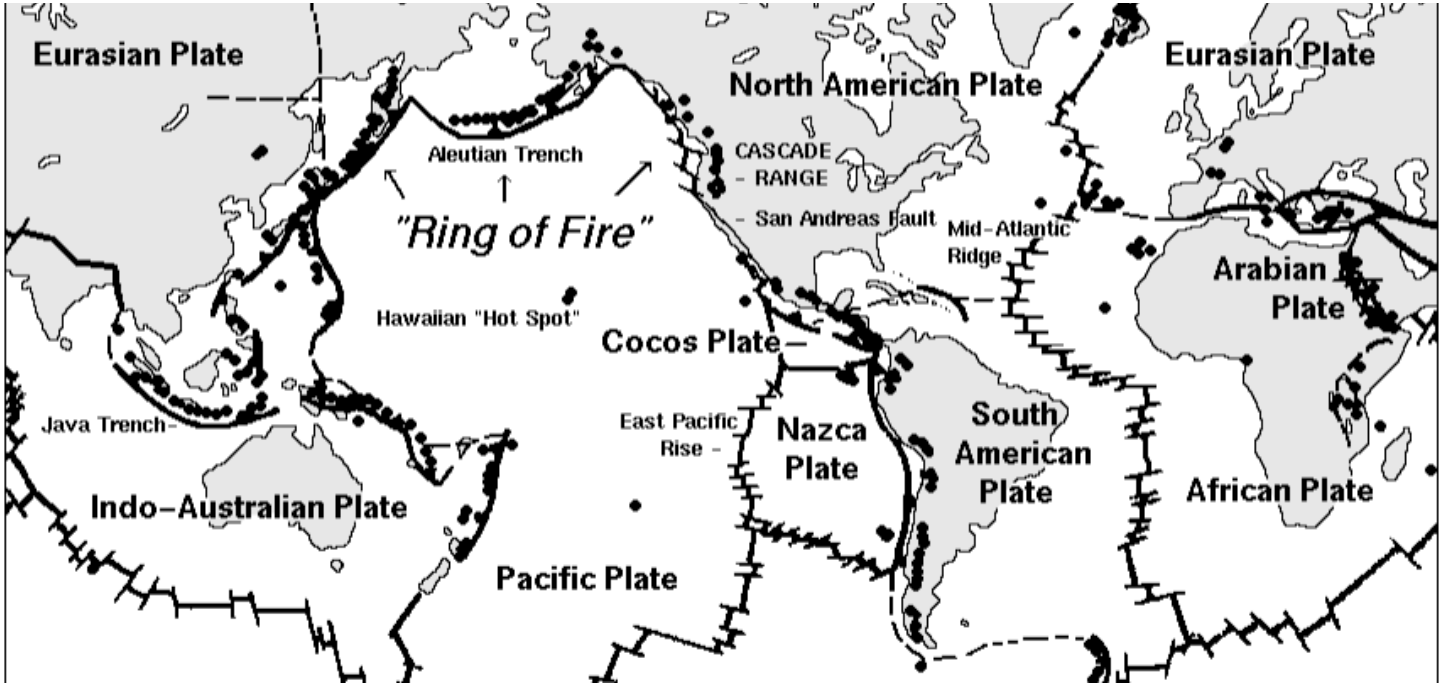


Occurs when rock particles or sediments are pressed together or packed down by gravity and the pressure of overlying rock layers

Cementation

Occurs when compacted sediments stick together and turn into rock

Plate Tectonic Theory



Theory that the lithosphere is divided into tectonic plates that slowly move on top of the asthenosphere

Weathering

The mechanical or chemical processes that break rocks into smaller pieces and sometimes change the chemical composition

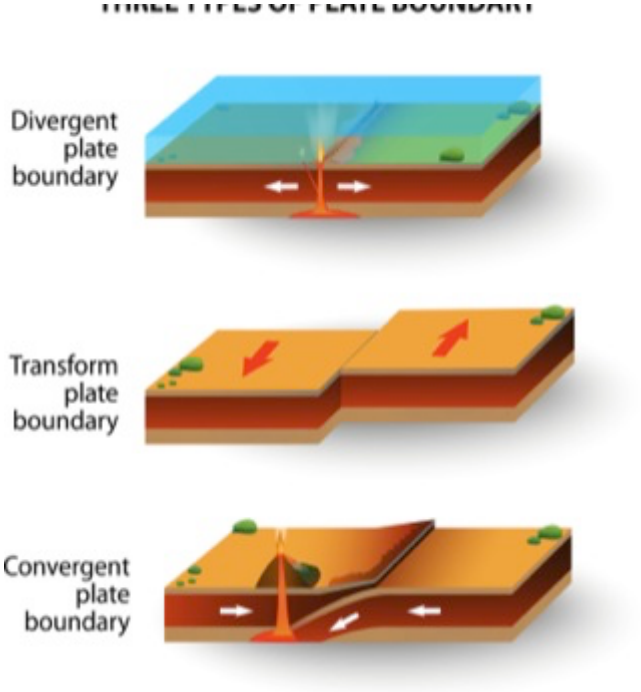
Erosion

The process by which water, ice, wind, and gravity remove and transport sediment from one place to another

Deposition

The process by which gravity, water, wind, and ice deposit weathered and relocated sediment

Ocean Trench



Deep and narrow depressions in the seafloor where the subducted plate moves into the asthenosphere

Mountain

A large landform that is formed by volcanos or the movement of the tectonic plates

Volcanic Eruption

Event in which molten rock spews out from the mantel to the surface of Earth as ash, lava, and gases; major geological event that occurs when a dense plate subducts below a less dense plate