**Sedimentary Rocks**

* Sedimentary rocks are formed by the process of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
  + The weathering debris are constantly being swept away from bedrock and carried away by water, ice, and wind (aka. Erosion).
  + The debris is eventually \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ into lakes, river valleys, seas, and countless other places.
  + As the sediments accumulate, the materials near the bottom are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ by the weight of the overlying layer. Over long periods of time, these sediments are cemented together by mineral matter deposited from water in the spaces between particles.

**Sedimentary Rocks**

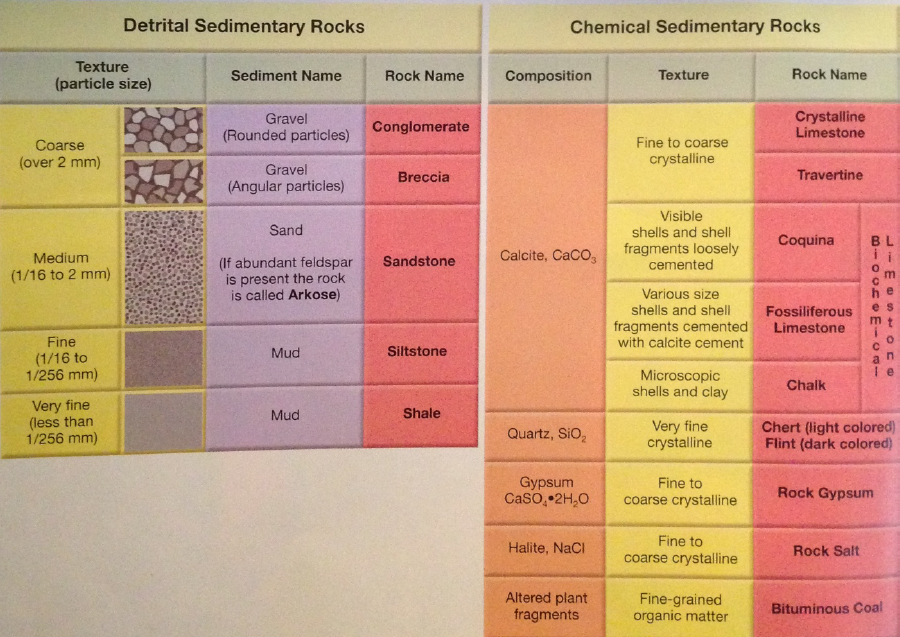
* Lithification – refers the processes by which sediments are transformed into solid sedimentary rocks.
  + Compaction – ­­­­­­­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + Cementation - minerals are carried in solution by water seeping through the pore spaces between particles. Over time, the cement precipitated onto the sediment grains, filling the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ spaces, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the particles together.
    - Calcite, silica, and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are the most common cements

**Sedimentary Rocks**

* Sedimentary rocks provide \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ with evidence of Earth’s long history.
  + Past environments
    - Conglomerate – indicates high-energy environment, such as rushing \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, where only a coarse material can settle out.
    - Black Shale or Coal – associated with \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, organic-rich environment such as a swamp or lagoon.
    - Ripple marks – may indicate a beach or stream \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ environment
    - Mud cracks – form when wet mud or clay dries and shrinks, possibly signifying a tidal flat or desert basin.
    - Fossils – traces of remains of prehistoric life, perhaps the most important inclusions found in sedimentary rocks.
      * Fossils are important tools used in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the geologic past.

**Classifying Sedimentary Rocks**

* Detrital Sedimentary Rocks – formed from \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ rocks, such as igneous rocks.
  + Mainly formed by clay minerals and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + Geologists us particle \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to classify detrital sedimentary rocks.
* Chemical Sedimentary Rocks – formed when dissolved substances are precipitated back as solids.
  + Formed by material that is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in solution to lakes and seas.
  + Limestone is the most abundant chemical sedimentary rock (composed of calcite (CaCO3)).



**Conglomerate vs. Breccia**

