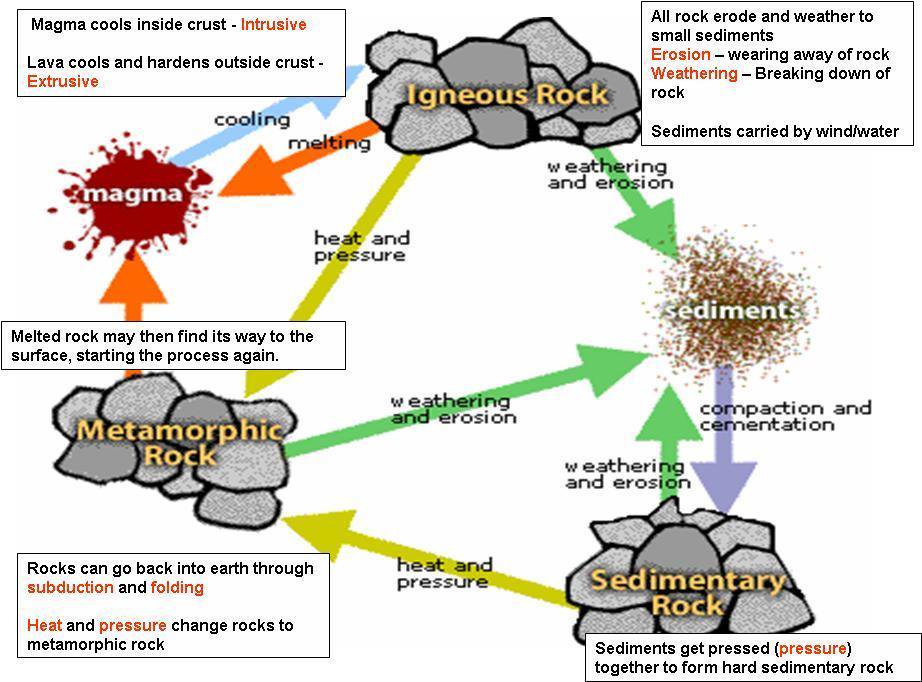
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| **Types of Rocks** |
| **The Rock Cycle**   * A continuous process which causes rock to change \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.   The 3 types of rocks are \_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.   * \_\_\_\_\_\_\_\_\_\_\_\_\_\_ rocks form from the \_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of \_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_ * \_\_\_\_\_\_\_\_\_\_\_ rocks form from \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ within \_\_\_\_\_\_\_\_\_\_\_\_\_ * \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ rocks form from either the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of a rock or putting it \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.   **MAGMA VS. LAVA**   * \_\_\_\_\_\_\_\_\_\_ is the name of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ that is \_\_\_\_\_\_\_ the earth’s \_\_\_\_\_\_\_\_\_\_\_   + It is found in the upper \_\_\_\_\_\_\_\_\_\_ and lower \_\_\_\_\_\_\_\_\_ layers of the earth * \_\_\_\_\_\_\_\_\_\_\_\_ is the name of \_\_\_\_\_\_\_\_\_\_\_\_\_ that is \_\_\_\_\_\_\_\_\_\_ the earth’s \_\_\_\_\_\_\_\_\_\_\_\_   **Why are magma & lava so hot?**   * + Scientists theorize that the heat is \_\_\_\_\_\_\_\_\_\_\_\_\_ from earth’s molten \_\_\_\_\_\_\_\_\_\_\_\_   + Also, heat generated from the decay of \_\_\_\_\_\_\_\_\_\_ elements are sources of earth’s \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   **How do rocks change?**   * Igneous—when molten material (*magma*) from deep \_\_\_\_\_\_\_\_\_\_ Earth; or when (*lava*) molten material on Earth’s surface cools—igneous rocks are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ * Molten material cools—igneous rock forms * The igneous rocks undergo \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and are broken into \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ * The sediments are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and carried away where they are deposited in a \_\_\_\_\_\_\_\_\_\_\_\_\_\_ * Over time the sediments continue to build up and the pressure from the overlying sediments and gravity from below causes heat to build; the rocks begin to move as hot plastic and therefore bend, stretch, the minerals in the rock may grow in size or rearrange within the rock; the rock cools and becomes a metamorphic rock specimen. * The process continues, but does not have to proceed in this exact order.   **IGNEOUS ROCKS**   * Igneous comes from the Latin word “ignis” = “\_\_\_” * Forms from \_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_ of \_\_\_\_\_\_\_   + Faster cooling = \_\_\_\_\_\_\_\_\_\_\_\_\_ crystals   + Slower cooling = \_\_\_\_\_\_\_\_\_\_\_\_ crystals * Two types: \_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_   + \_\_\_\_\_\_\_\_\_\_ forms \_\_\_\_\_\_\_\_\_\_ the Earth (or \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_)   + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ forms \_\_\_\_\_\_\_\_\_\_ the Earth * Typically found in the \_\_\_\_\_\_\_\_\_\_\_\_ of \_\_\_\_\_\_\_\_\_ plate boundaries and in \_\_\_\_\_\_\_\_\_\_ plates   **SEDIMENTARY ROCKS**   * Form from \_\_\_\_\_\_\_\_\_ material in \_\_\_\_\_\_\_\_\_\_\_\_\_ through the process of \_\_\_\_\_\_\_\_\_\_\_\_ * \_\_\_\_\_\_\_\_\_\_\_\_\_\_: the \_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_ processes that transform sediments into sedimentary rocks   + Begins with \_\_\_\_\_\_\_\_\_\_\_\_ * When sediments are buried \_\_\_\_\_\_\_ deep, they will be able to start \_\_\_\_\_\_\_\_\_\_   and \_\_\_\_\_\_\_\_\_\_ changes to cause \_\_\_\_\_\_\_\_\_\_\_\_\_\_  **“settling” or from Latin *sedimentum***   * Particles of organic and inorganic material are carried from one place to the next where they are deposited and build up over time. * Water reacts with the minerals in the sediments and “cements” the pieces together to form a new rock. Particles can be so tightly pressed together that they are “compacted” into a specific rock. * Fossils are most often found in sedimentary rock. * Types: \_\_\_\_\_\_\_\_ (coarse-grained, medium grained, and fine-grained), \_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_ * Found \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   **SEDIMENTARY ROCK TYPES**   * \_\_\_\_\_\_\_\_\_: grain size determines this type   + \_\_\_\_\_\_\_\_\_\_\_\_\_: has gravel-sized sediments   + \_\_\_\_\_\_\_\_\_\_\_\_\_: has sand-sized sediments   + \_\_\_\_\_\_\_\_\_\_\_\_\_: has silt-sized sediments * \_\_\_\_\_\_\_\_\_\_\_\_\_\_: during chemical weathering, minerals get dissolved and carried into lakes and oceans; as water evaporates, minerals left behind become rocks * \_\_\_\_\_\_\_\_\_\_\_\_\_\_: form when water evaporates and leaves minerals * \_\_\_\_\_\_\_\_\_\_\_\_\_\_: remains of once-living things   + Fossils form this type of rock   **METAMORPHIC ROCKS**   * “to change form” * May change drastically from the original *parent* rock. * Change is due to intense heat and pressure; causes rocks to fold, bend, twist.   \_\_\_\_\_\_\_\_\_\_\_\_\_\_: change in the \_\_\_\_\_\_\_\_\_ of rock by \_\_\_\_\_\_\_\_\_ agencies, such as \_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_   * So, that means a metamorphic rock is one that has been heated or had pressure put on it * Where would a rock be heated or had pressure put on it?   + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_     - This would be known as \_\_\_\_\_\_\_ metamorphism   + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_     - This would be known as \_\_\_\_\_\_\_ metamorphism   **Classification of Metamorphic Rocks**  Foliated and Non-foliated   * Foliated-rocks become more compacted and more dense; (Ex. Slate: minerals align in a similar direction; minerals also recrystallize and form bands (Ex. Gneiss: rocks appear to have a layered or banded appearance) * Non-foliated—no banded texture, most only contain one mineral (Ex. Calcite), crystals combine to form larger crystals (Ex. Marble)   **Erosion and Deposition**   * Agents of Erosion (wind, water, ice, and gravity) * Loss of energy of motion, sediments are dropped (deposited) by that agent * Sediments are deposited by size; larger sediments are generally on the bottom   **Compaction and Cementation**   * Lithification—turned into stone * Compaction—squeezing or pushing together of sediments with force * Cementation—dissolved minerals are deposited in tiny spaces between the sediments creating a glue that binds the sediments together |

[](https://www.google.com/url?sa=i&rct=j&q=&esrc=s&source=images&cd=&cad=rja&uact=8&ved=0ahUKEwib5LDAsqLXAhUHTCYKHd8vCH4QjRwIBw&url=https://www.thinglink.com/scene/716715750202540034&psig=AOvVaw35Ow6lAa7ZIK1rW9crdN7T&ust=1509798133088324)