

# The Rock Cycle

**Rock** – A naturally occurring, solid mixture of crystals of one or more \_\_\_\_\_.

## The Value of Rock:

- **Rocks have been used for centuries to make \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_.**
- **Buildings have been made out of granite, limestone, marble, sandstone, slate, and other rocks. Concrete and plaster, which contain rock, are used in modern times.**

## Processes That Shape the Earth:

- **Wind, \_\_\_\_\_, ice, heat, and gravity all cause rock to \_\_\_\_\_ into fragments.**

**Preexisting Rock**



\_\_\_\_\_ – **Rock is worn down into fragments**



**\_\_\_\_\_** – Small fragments of rock



**\_\_\_\_\_** – Sediment is transported from one place to another by wind, water, ice or gravity.



**\_\_\_\_\_** – Sediment is laid down in a certain area.



**\_\_\_\_\_** – Sediment is compressed together by layers of sediment on top.



**\_\_\_\_\_** – Dissolved minerals separate out of the water to form a natural glue that binds the sediments into sedimentary rock.

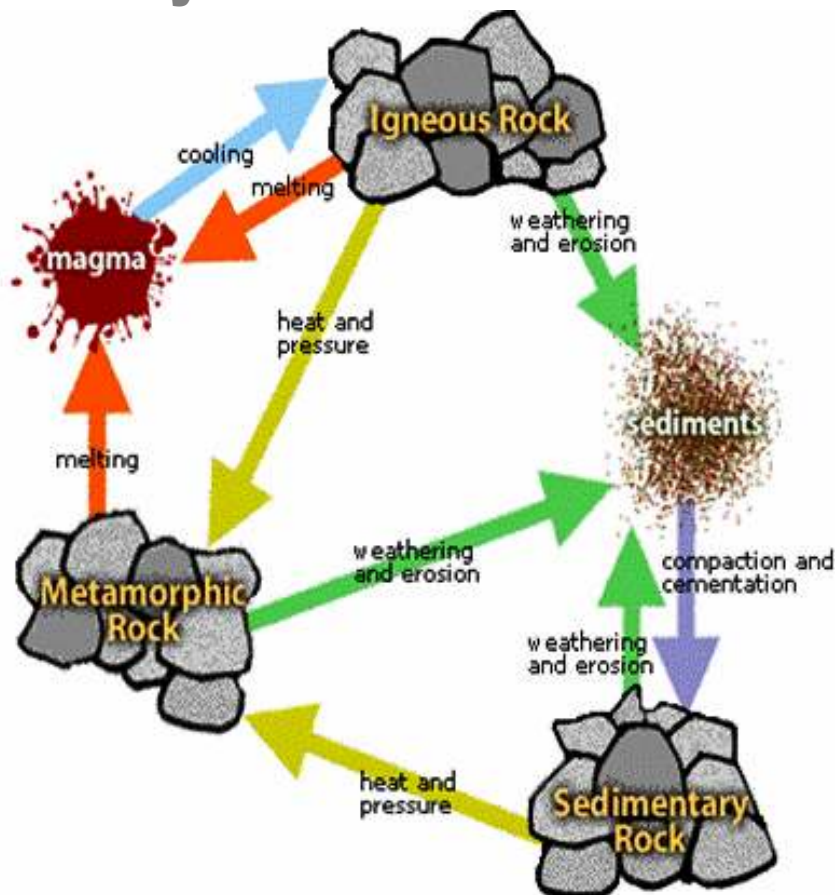
➤ **\_\_\_\_\_** rock can form when sediment is buried and squeezed by the weight of overlaying layers of sediment.

- **If temperatures and pressures are high enough, \_\_\_\_\_ rock is formed.**
- **If rock gets hot enough to melt, it becomes \_\_\_\_\_. Magma eventually cools to form \_\_\_\_\_ rock.**
- **Buried rock is exposed at the Earth's surface in two ways:**
  - \_\_\_\_\_ – **Movement within the Earth that causes rocks inside the Earth to be moved to the Earth's surface.**
  - \_\_\_\_\_ – **Material above rocks is weathered and transported away, exposing the rock below.**

### Three types of Rock

1. **Igneous**
2. **Sedimentary**
3. **Metamorphic**

- The way a rock \_\_\_\_\_ determines what type of rock it is.
- Rock Cycle – The process by which one rock type changes into another.
- Each type of rock can become any other type of rock.
- The \_\_\_\_\_ of a rock determines which forces will have the biggest impact on it, and which path in the rock cycle it will take.



## **Rock Classification:**

- **Rocks can also be classified according to their \_\_\_\_\_ and \_\_\_\_\_.**
- **Composition – The \_\_\_\_\_ a rock is made of.**
  - **Ex: Granite can be made up of 55% feldspar, 35% quartz, and 10% biotite mica.**
- **Texture – The \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_ of the grains of which a rock is made.**

## **Three types of texture:**

\_\_\_\_\_ -grained – **Smallest particles**

**Ex:** \_\_\_\_\_

\_\_\_\_\_ -grained

**Ex:** \_\_\_\_\_

\_\_\_\_\_ -grained – **Largest particles**

**Ex:** \_\_\_\_\_

- **The texture of a rock can give clues to how it was \_\_\_\_\_ (a rock with layers suggests it was formed when sediment was deposited).**