

# THE ROCK CYCLE

**Activity Booklet** 

Name:



# **Igneous Rocks**

(fire/melting and cooling)

Granite \_\_\_\_ (black, gray, white or pink crystals)

Obsidian\_\_\_\_ (no crystals, looks like glass)

Pumice\_\_\_\_ (lightweight, has tiny holes, floats on water)



# **Sedimentary Rocks**



(sediment pressed together)

| Shale (d      | rk gray, smooth, pressed clay sedimei | nt |
|---------------|---------------------------------------|----|
| Limestone     | light gray, pressed sediment)         |    |
| Conglomerate_ | _ (different types of sediment presse | d  |
|               | together)                             |    |
| Sandstone     | (rough pressed sediment/sand)         |    |



## **Metamorphic Rocks**

(heat & pressure)

Marble\_\_\_\_\_ (white, shiny crystals)

Slate\_\_\_\_\_ (dark gray to black with flat, thin layers)

Gneiss\_\_\_\_\_ (speckled crystals that form layers)



Draw what you think the jar will look like after your teacher shakes it and all the sediment-sand, pebbles and peat settle. Label it.

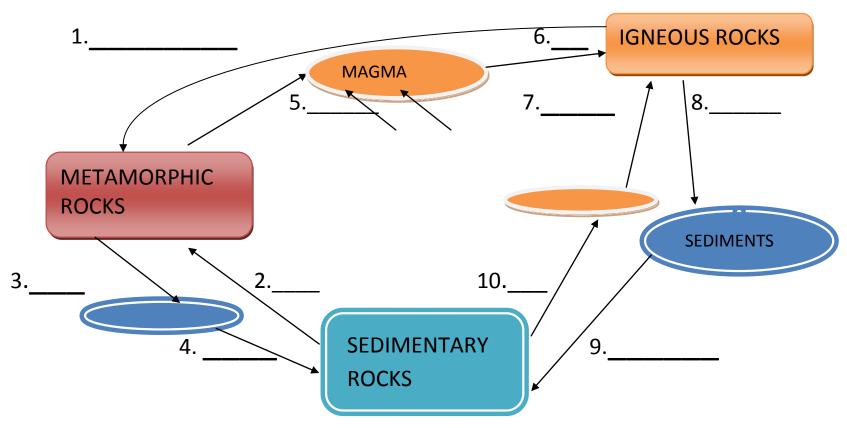


### **CRAYON ROCK SIMULATION**

| Type of Rock | What did we do?<br>(Write or Draw) | What does it look like? (Draw) |
|--------------|------------------------------------|--------------------------------|
| Sedimentary  |                                    |                                |
| Igneous      |                                    |                                |
| Metamorphic  |                                    |                                |

### **ROCK CYCLE CHALLENGE**

(Fill in the numbers and colored ovals)



Processes: Heat & Pressure, Melt, Pressure, Weathering and Erosions, Cool/Crystallize, Compaction

Intermediate materials: Sediment, Magma

| 1. | What process(es) are needed for igneous rock to become sediment?         |
|----|--|
| 2. | What process(es) are needed for sediment to become sedimentary rock?     |
| 3. | What process(es) are needed for sedimentary rock to become metamorphic?  |
| 4. | What process(es) are needed for metamorphic rock to become sedimentary?  |
| 5. | What process(es) are needed for igneous rock to become sedimentary rock? |
| 6. | What process(es) are needed for sedimentary to become igneous rock?      |
|    |  |
|    |  |

Use the rock cycle chart to answer the following questions.

### **The Rock Chronicles**

<u>Directions</u>: Complete each row by drawing pictures and writing captions in the missing spaces.

| Hi! I am a small piece of rock called sediment. My other sediment friends and I always hang out together, but one day we noticed that things were changing | (What process happens here? How does a piece of sediment become a sedimentary rock?) | Next thing we knew, we were all part of one sedimentary rock (conglomerate)! |
|--|--|--|



Whew! Life as a metamorphic rock (gneiss) is pretty tough! As soon as I got comfortable with all this pressure, something amazing happened!



I was swept up into a volcano! It was so hot that I melted and turned into magma! Then, I cooled underground with pink, gray, and black crystals.

(What type of rock is the result of cooled and hardened magma?)

