

## Sedimentary/Conglomerate Rock Kit

**Objective:** Rocks and Minerals/Rock Cycle. Students will work with specific types of sediment to construct a sedimentary rock using masonry mix as the bonding agent.

Meets TN State Standards:

**GLE 0707.7.1** Describe the physical properties of minerals.

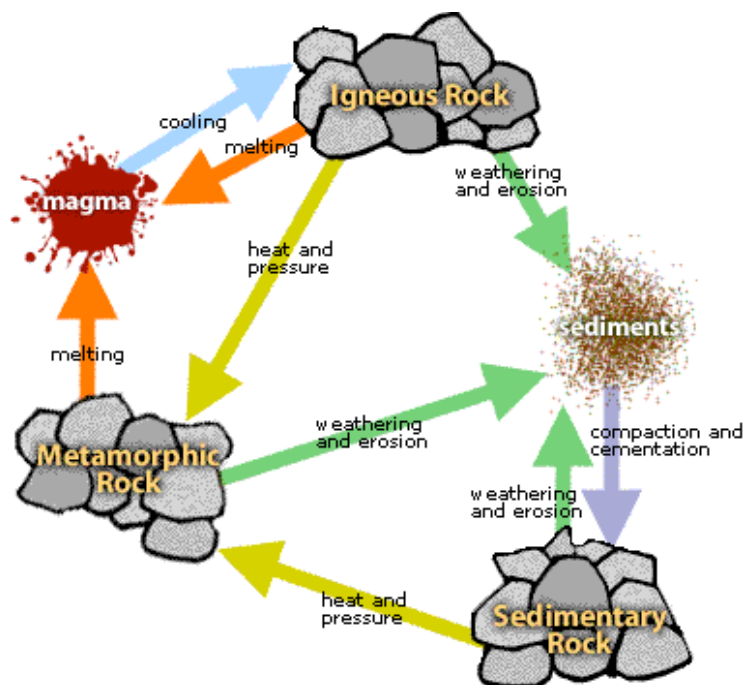
**GLE 0707.7.2** Summarize the basic events that occur during the rock cycle.

**Pre-lesson:** Teachers should walk students through Rocks and Minerals Powerpoint before the Scientist arrives in the classroom.

### Introduction:

Discuss/Review the following (write underlined vocabulary words on the board):

- A rock is a solid material from the Earth that is usually made up of one or more minerals.
- A mineral is a solid material made of only one type of substance (example: table salt)
- Three rock categories: Igneous Rock, Sedimentary Rock, Metamorphic Rock
- Draw the rock cycle shown below and discuss how heating and pressure, melting and cooling, weathering and erosion, compaction and cementation lead to the formation of all 3 rock types.



- Draw focus to compaction and cementation for formation of Sedimentary Rock.

## Materials:

- Sand
- Coarse Stone
- Concrete Mix
- Stir Stick
- Permanent Marker
- Pea Gravel
- Candy Hearts
- Plastic Cup
- Lab Observation Sheet
- 5 Scoops

## Procedure:

1. Students pick up a plastic cup, stir stick, and permanent marker.
2. Students write their name and class period on the outside of their cup.
3. When instructed, students move from station to station putting the appropriate amount (1 scoop) of each type of sediment on their plate in the appropriate section.
4. Students observe and draw their types of sediment on their lab sheet.
5. Pour all four sediments into their cup by folding the plate.
6. Teacher or scientist should CAREFULLY add the appropriate amount (1 scoop) of concrete to their plastic cup. The concrete mix, sand, pea gravel, and coarse stone should all be stirred.
7. Gradually add water to the cup by pouring the water gently over the top of the sediment in the cup. DO NOT STIR AGAIN!
8. Place the cup on the counter and let sit for 4-7 days or until hardened.

## Post Lesson Follow Up:

9. Once hardened, cut away cup. Optional: smash rock with a hammer, identify its component parts.

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Documentation Sheet**

Draw and describe the sediments that you put in your cup. Be descriptive...talk about shape, color, size, texture, etc.

Sediment 1: Sand	Sediment 2: Pea Gravel
Sediment 3: Coarse Stone	Sediment 4: Candy Hearts
Binding Agent: Cement	Water:

**Reflections:**

1. What did you enjoy about this lab?

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2. What did you learn about sedimentary rock by doing this lab?

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