**Modeling the Rock Cycle with Crayons**

*Explore*

Weathering:

1. Scrape crayons with your grating tools (plastic knives or popsicle sticks); this is analogous to a process called weathering in real life. Then move the crayon pieces around; this process is known as erosion in real life.
   * **In real life, wind and water cause weathering and erosion. Based on what you learned in 6th grade, what energy source is ultimately responsible for weather like wind and rain?**

Sedimentation

1. Gather a pile of sediments, or small pieces of rock, collected from various scraped crayons. Make layers of different color crayon sediments.
2. Press down on this pile to allow the particles to stick together.
   1. Encasing the sediments between sheets of paper, foil, etc will help keep the sediments together. Using a utensil or stepping on your pile will help this process along too.

* **Here we are applying pressure with our fingers. Where do you think this pressure comes from with real rocks?**

1. Your pressed bunch of crayon sediments is now equivalent to a sedimentary “rock”.

Deformation

1. Place a small pile of sedimentary crayons into a piece of aluminum foil or foil cupcake cup.
2. Float this foil on hot water.

* **Heat and pressure are very important in the rock cycle. Hypothesize: where do you think this heat comes from in real life?**

1. Remove the foil when the crayon wax is soft to the touch (don’t use your finger, use a probe such as a popsicle stick).
2. Let your crayons cool.
3. Your partially melted and cooled crayons are now equivalent to metamorphic “rocks”.

Crystallization

1. Place a small pile of sedimentary or metamorphic crayons into your piece of aluminum foil.
2. Float this crayon-containing foil on hot water.
3. When a smooth liquid forms, carefully remove the molten crayon wax and let cool. Your totally melted and cooled crayons are now equivalent to igneous “rocks”.

* **How is the process of deformation different from crystallization? Which one requires more heat?**

**Critique, Correct, Clarify – Rock Cycle Model**

*Elaborate*

