

The Crayon Rock Cycle

Introduction:

Crayons have the ability to be ground into small particles (weathered), heated, cooled, and compressed just like rocks. Using crayons, we will create igneous, sedimentary, and metamorphic rocks.

Materials:

- Crayons – two colors per group
- Hot water
- Foil
- Beaker
- Penny to scrape crayon

Procedure:

1. Start with a piece of crayon. Use your penny to scrape off sediment from your crayon.
2. Gather a pile of sediments scraped from two different colors of crayon.
3. Press down on this pile to squeeze the particles together.
4. What type of rock have you just made out of your crayon sediments?
5. Now, place your crayon rock into a foil boat.
6. Float this boat in your beaker of hot water.
7. Watch as the heat of the water transfer to the foil and then the crayon. The crayon should start to melt.
8. Remove your crayon when it is soft to the touch. Do not use your fingers! Use a probe (like a pencil) instead.
9. Let your crayons cool.
10. Your partially melted and cooled crayon is like what type of rock?
11. Place your crayon rock once again in a foil boat.
12. Float the boat on hot water in your beaker. (You may need to get fresh hot water if yours has cooled.)
13. Watch as the heat from the water transfers to the foil and then the crayons. The crayon should start to melt.
14. Let your crayons continue to melt until a smooth liquid forms.
15. Carefully remove your boat from the water, and let the crayons cool.
16. What type of rock is your cooled crayon?

Conclusion – Answer in Complete Sentences:

1. What was the first type of crayon rock we formed in this lab?
2. What was the second type of crayon rock we formed in the lab?
3. What was the third type of crayon rock we formed in this lab?
4. Do you think we would always have to go in the same order for this lab in making each type of rock? Explain your answer.
5. Compare and contrast this lab to the real rock cycle.