1.C Crayon Rock Cycle— Igneous

Can you model the rock cycle using nothing more than crayons?

MATERIALS

- Crayon shavings from sedimentary rock
- Aluminum Foil Square
- Sun

Do the Experiment!

Record your findings in your journal.

1. Place the rest of one of your crayon shavings onto an aluminum square.
2. Take your shavings into a sunny spot outside. If it's cold and cloudy have an adult warm up your oven or toaster oven to 300 degrees. Line a pan with aluminum foil and place your aluminum square on the pan. Make sure an adult puts the pan into the oven and takes it out.
3. Count how many seconds it takes for the shavings to liquefy.
4. As the shaving cools it will harden.
5. The crayon shavings melting and then cooling have created an *igneous* rock.

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DID YOU KNOW...

The rock cycle is a model that helps scientists understand how rocks form and change. By understanding the rock cycle, scientists have been able to group rocks into three different categories: **igneous**, **sedimentary** and **metamorphic**.

Igneous rocks form when lava and magma cool. Magma is the same thing as lava except it is underneath the ground, once it flows aboveground, we call it lava. Some igneous rocks form inside of volcanoes and are blown out after a volcano erupts; others form after flowing lava cools off. The crust of our planet Earth is igneous because are planet was once a flowing soup of lava! Some examples of igneous rocks are basalt, obsidian and pumice.

CHALLENGE

1. How do you think igneous rocks form in nature? {Hint: Think of where rocks are melted in nature!}
2. See above. Obsidian looks like volcanic glass. Pumice often forms inside a volcano and is blown out when a volcano erupts. Pumice has lots of holes in it and is so light it can float on water. Of the rocks below which is obsidian and which is pumice?
3. Do you know of a different rock that is created with heat and pressure? How about a rock that is created by erosion, layering and cementation?

STEAM Challenge: Pumice is a very porous rock (lots of holes). Pumice may start off with less holes when it is first being formed. Let's say a pumice has 1276 holes when it first begins to form and 3629 when it is blown out of the volcano. How many more holes does the pumice have when blown out?

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