

The Rock Cycle is Sweet!

Activity Summary

This activity uses candies to explore the steps and forces that work on rocks during the rock cycle. Imagining the candy as rock you will use household items to weather, compress, and heat the candies to simulate what happens to rocks over time.

The Rock Cycle Song by Jam Campus could be used to augment this activity. Song can be found at: <https://www.youtube.com/watch?v=G7xFfezsJ1s>

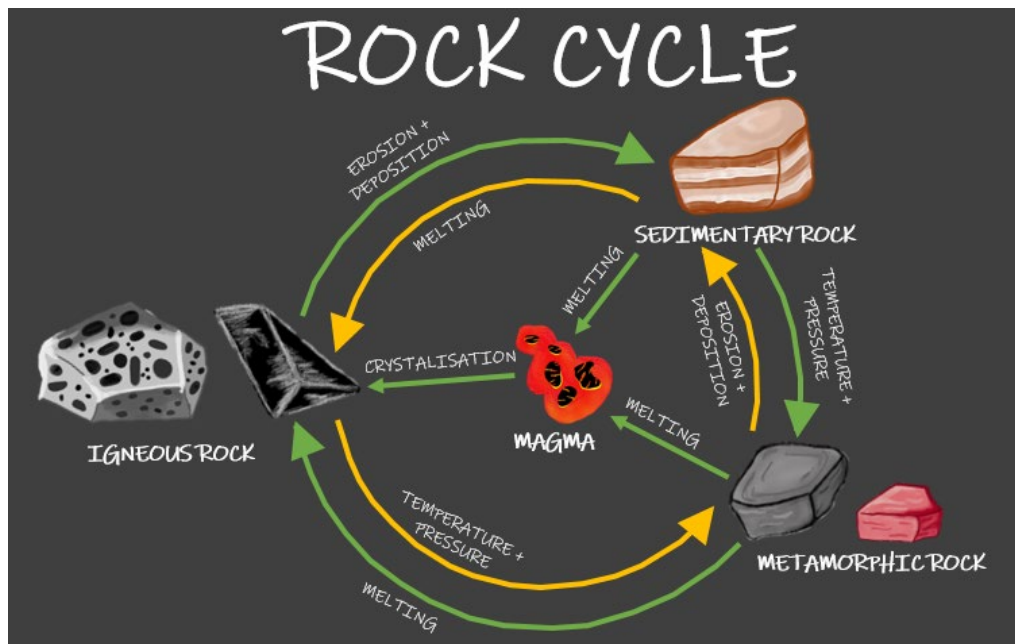
Materials

- Unwrapped Starburst or other taffy like candies
- Plastic bag, plastic wrap, or warm hands
- Microwaveable plate
- Microwaveable bowl or cup
- Microwave*
- Knife or Cheese Grater
- Spoon or Spatula



* If microwave isn't available a hair dryer can be used, results will vary.

CAUTION: Adult supervision is required for this activity. Candy will be HOT after using the heat source, use caution as all times. Be sure candy has cooled before handling.



The Rock Cycle is Sweet!

Steps

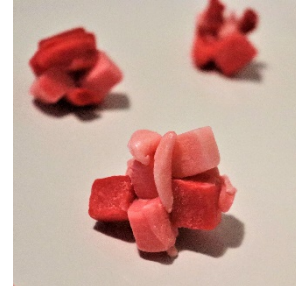
1) Weathering

Ask participants to imagine that the candies are rocks. Weather your rocks by either cutting the candies into smaller pieces or grating them



2) Sedimentary Rocks

Loosely compact your sediments together so that they stick together but are not well formed.



3) Metamorphic Rocks

Apply heat and pressure to the Sedimentary Rock until it is well formed and smooth. This can be done by pressing the rock with your warm hands. You can just hold the rock in your hand and squeeze but if you would prefer you can also place it in a plastic bag or plastic wrap before you squeeze the rock



4)

Place the Metamorphic Rock in a small bowl of plate and heat in the microwave for 30 seconds to melt the rock.



5) Igneous Rock

Being very careful not to burn yourself on the hot candy, scoop some from the bowl and place in on the plate to cool.

Once the rock has cooled it undergoes weathering (Step 1) and the cycle repeats.



The Rock Cycle is Sweet!

Activity Questions

The activity leader can keep this sheet to themselves and use as a reference or guide for discussion throughout the activity.

Step 1: Weathering

Q: What is weathering?

A: Breaking down or dissolving of rocks and minerals

Q: What are some things that cause weathering?

A: Water, acid, salt, plants, animals, and changes in temperature

Q: What do these small pieces of candy represent?

A: Sediments

Step 2: Sedimentary Rocks

Q: At this step, what type of rock does this represent?

A: Sedimentary Rock

Q: What processes form Sedimentary Rocks?

A: Sedimentation (erosion + deposition) and compression (pressure) over time

Q: What are some types of Sedimentary Rocks?

A: Sandstone, siltstone, shale, flint, some dolomite, and some limestone.

Step 3: Metamorphic Rocks

Q: At this step, what type of rock does this represent?

A: Metamorphic Rock

Q: What forms Metamorphic Rocks?

A: Heat and pressure over time

Q: What are examples of Metamorphic Rocks?

A: Schist, gneiss, marble, anthracite, and slate.

Step 4

Q: By applying extreme heat to a Metamorphic Rock, what have we created?

A: Magma or lava

Q: Magma versus lava?

A: Magma cools below the earth's surface and forms intrusive igneous rocks. Lava cools on the earth's surface and forms extrusive igneous rocks.

Step 5: Igneous Rocks

Q: What type of rock do we have now?

A: Igneous Rocks

Q: What are some types of Igneous Rocks?

A: Basalt, obsidian, pumice, tuff, and granite.