

Title: Rock Around the Rock Cycle

The rocks that make up the Earth are constantly being recycled. One form of rock is often changed into another form of rock through certain processes of nature that occur over time.

Purpose: (Use this to create your Statement of the Problem) Use this activity to model the rock cycle. Remember, the candy represents rock and will be referred to as "sedimentary rock", "metamorphic rock", "igneous rock", "sediments", and "magma" in the procedure.

Materials:

-3 different colored Starburst Candies	- Scissors	-12" X 12" piece of tin foil
-2 Small foil pie pans	-hot plate	-colored pencils
-paper	-heavy books	-blank rock cycle diagram

Procedure:

1. Take your 3 different colored Starburst and cut them into as many small pieces as you can.
2. Put the pieces in a pile and **Draw what you observe in your sediments box on the rock cycle diagram.**
3. Pick up the "sediments" and gently push them together so they all form in to one big piece.
4. Set the piece down and **draw what you observe in the sedimentary rock box on the rock cycle diagram.**
5. Now take your "sedimentary rock" and warm it in your hands for a while.
6. Place the paper and book on top of the warm "sedimentary rock" and press down on it.
7. Fold this "rock" in half and press down on it some more.
8. **Draw what your observe in the metamorphic rock box on the rock cycle diagram.**
9. Place your "metamorphic rock" on the piece of tin foil.
10. Turn on the hot plate to low and place the tin foil on the hot plate.
11. Observe the "metamorphic rock" as it melts.
12. **Draw what you observe in the magma box on your rock cycle diagram.**
13. Take your foil off the hot plate being careful not to spill the "magma".
14. Set the "magma" on the table and observe it as it cools and hardens.

15. **Draw what you observe in the igneous rock box on your rock cycle diagram.**
16. Take the hardened "igneous rock" and break it in to "sediments".

Data: Rock Cycle Diagram (Label every arrow on the diagram.)

Analyze:

1. How could you turn the sedimentary rock into a igneous rock without going through the metamorphic stage?
2. How could a rock be changed but still be classified as the same form of rock?
3. What type of rock do you think forms from erupting volcanoes?
4. Which rock is formed from broken-down pieces of rock?
5. How do you think these pieces (question 4) harden into rocks in nature?
6. How can this activity be described as a cycle?
7. Besides using Starbursts to represent minerals, how is this model of the rock cycle different than the real rock cycle in nature?