Rock Cycle Starburst Lab

Name _____ Period _____

Purpose: To observe the rock cycle through a series of simulation activities.

Materials (per group): 3 Starbursts of different colors, grater, paper towel, aluminum foil, tin cupcake liner, text book.

Procedure & Data:

** Each Starburst represents a rock**

1. Unwrap all the Starburst. Using the grater, **weather** (shave) each of the different Starbursts onto the paper towel keeping the colors separated.

2. Now, one **layer** (color) at a time, **erode** (move) and **deposit** your weathered Starbursts into foil cupcake liner into a single neat pile of three layers.

3. Carefully fold the aluminum foil around the pile. **Compact** and cement the layers by placing (NOT PRESSING/PUSHING) the stack of textbooks from your table on top of the folded aluminum foil for about 1 minute. Then remove the textbooks and unwrap the aluminum foil. Break off a small piece of the Starburst Rock and set it aside.

What kind of rock does it represent? _____

4. Rewrap the tin foil and place ONE textbook back on top of it. This time push down on the text book with as much pressure as you can.
5. Then see the teacher to heat your rock. BRING YOUR PAPER TOWEL WITH YOU. You will place your foil on the hot plate for **30 seconds**.
6. After heating, use the paper towel to carry the foil packet back to your table, set the foil packet down, and place a textbook on it and let the foil packet cool under the text book.
7. After it is cool remove the textbook, unwrap the foil, break off a piece of the Starburst rock and set it aside

What kind of rock does it represent now? _____

8. Take the rest of your rock and place it back into the tin cupcake liner. DO NOT CLOSE/WRAP THE FOIL.
9. Raise your hand to be called up to heat your rock. Watch your rock in the cupcake liner on the hot plate until it melts.
10. After heating, return to your table, and allow the Starburst to cool. DO NOT TOUCH THE STARBURST.

What does the cooling Starburst rock represent? _____

What kind of rock will it represent when it cools and solidifies? _____

Analysis:

1. When you weathered the Starburst, were the shavings the same size or shape as before? Why?

2. What did you use to weather the Starburst in the lab? What are 2 different ways rocks are weathered in nature?

3. What are some natural processes erode (move) sediments in nature?

4. Where are rock sediments usually deposited in nature? (Hint: where water meets land)

5. How are rock sediments put together to form a sedimentary rock?

6. What was the difference between making a sedimentary rock and making a metamorphic rock?

7. When you melted the starburst and it cooled what type of rock was formed? Would you characterize it as Intrusive or Extrusive and why?

Fill out the table below using what you learned <u>from the lab</u>.

Rock Type	2 Characteristics	How did it form?	Drawing
Sedimentary			
Metamorphic			
Igneous			