**Rock Cycle Lab Sediments**

1. The crayons were broken down to create sediments, naturally occurring materials that are broken down by processes of weathering and erosion. What forces in nature break down rocks?

2. Compared to the original crayon, how would you describe the apparent density (mass/volume) of your shavings? Explain using the terms **mass** and **volume and surface area**.

**Sedimentary Rocks** *Answer the questions above & check them with Teacher before doing this:*

* *Materials: 3 different colors crayon shavings, each quarter size.*
* *Take your 3 colors and carefully layer them on the sheet of paper, one on top of another, try not to spread them out too much.*
* *Fold a paper layer on top of the pile and CAREFULLY move it all to the ground.*
* *Using a board on top of the folded paper, you and your table partner will step on it for about 30 seconds.*

1. What force was used to form the Sedimentary Rock? Describe what happened.

Top View

Side View (break)

2. How did the apparent density of your shaving change after they were formed into a Sedimentary Rock?

3. Define pore (think of the pores in your face). How do the pores in your new rock compare to the Sediments (shavings) that were in a pile before?

4. How are Sedimentary rocks made in nature?

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**Rock Cycle Lab Metamorphic Rocks**

*Put any extra “sediments” on top of your now “sedimentary rock”. Put your “rock” into the microwave for no more than 30 seconds. Take it out and step on it with the board and your partner. Carefully remove the paper to see what has happened to your “rock.” If it looks exactly the same as before, do another 30 seconds in the microwave and squish it with the board again. Only do this a maximum of 4 times.*

Top View

Side View (break)

1. What force did you use to make your Sedimentary rock into a metamorphic rock?

2. How did the density change from your Sedimentary rock to your new metamorphic rock?

3. How has the pore size changed between the Sedimentary rock and the metamorphic rock?

4. Is the Metamorphic rock thinner or thicker than the Sedimentary rock? Why?

5. How are metamorphic rocks made in nature?

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4. Is the Metamorphic rock thinner or thicker than the Sedimentary rock? Why?

5. How are metamorphic rocks made in nature?

**Rock Cycle Lab Igneous Rocks**

*Take a tin can and put all of your metamorphic crayon inside. Put the tin can on a hot plate and wait for it to COMPLETELY melt. Use the tong and pour the crayon magma into the beaker full of water. When the magma has cooled completely, fish all the crayon bits out of the water and take back to your seat.*

Draw 1 view

1. What force did you use to make your metamorphic rock into a igneous rock?

2. How did the apparent density change from your metamorphic rock to your new igneous rock?

3. How has the pore size changed between the metamorphic rock and the igneous rock?

4. How else is your new igneous rock different from your other two rocks?

5. How are igneous rocks made in nature?

**Rock Cycle Lab Igneous Rocks**

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Draw 1 View

1. What force did you use to make your metamorphic rock into a igneous rock?

2. How did the apparent density change from your metamorphic rock to your new igneous rock?

3. How has the pore size changed between the metamorphic rock and the igneous rock?

4. How else is your new igneous rock different from your other two rocks?

5. How are igneous rocks made in nature?

**Conclusions**

1. Name the forces in nature cause rocks to breakdown.

2. Name the forces in nature cause new rocks to form.

3. Compare and contrast the different forms your rock took during this lab.

4. How can you make a different rock from your igneous rock?

5. What is a cycle? Why is the changing of rock from one to another a cycle?

6. Label the rock cycle below by double clicking on it and adding text boxes:

**Sediments**

**Sedimentary**

**Metamorphic**

**Magma /Lava**

**Igneous**