

# Thank you for your purchase!

Enjoy teaching again!



This is the original work of CrazyScienceLady. My work is copyright protected by the DMCA of 1998.

You may...	You may not...
<div>Make copies for students</div> <div>Use for years to come!</div> <div>Place on a password protected classroom page, such as Google classroom</div>	<div>Give copies or email this resource to other teachers</div> <div>Upload to a non-password protected website</div> <div>Sell this for profit</div> <div>Give this away for free</div>

Name \_\_\_\_\_

## Rock Cycle Lab: Modeling with Starbursts

Before we get started, fill in the table below.

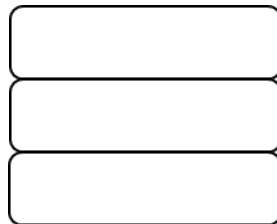
Type of Rock			
What you need in order to get this type of rock			

### The Rock Cycle:

We are going to model the rock cycle with starburst candies. Begin with 3 starbursts. They must all 3 be different colors. Unwrap your candies.

**Part 1:** You should have a plastic Ziploc bag at your lab station. Take your three candies and stack them (standing up) in the plastic bag. Place the brightest or darkest color in the middle. Color your candies below.

Picture 1:



Keeping your candies stacked neatly (this may take some practice), try to get as much air out of the plastic bag as possible. Place them in the middle of the bag. Close the bag, but do not seal it. They must stay stacked.

**Part 2:** Take your stacked starburst pieces and place them on the floor. Place a textbook on top of them. The candies should be under the center of the book. Stand on the textbook for 1 minute. Do not bounce or wiggle. Step off the book. Pick up the book. Pick up your plastic bag. Carefully remove candies from plastic bag. Draw and color on the next page. Show DETAIL.

Picture 2:

Part 3: Place your candies back into the plastic bag. Do not seal the bag. One person from your lab table should hold the baggie (open end being held out of the water) in the hot water basin. Keep the candies under the water level for 30 to 45 seconds. Remove the bag from the water. Shake off excess water. Throw it on the floor. Carefully, place a textbook on top of the bag. Stand on the book. Do not jump on it or attempt to move it around in the bag. You simply want to apply some pressure. You only need to stand on it for about 5 seconds. Repeat this two more times. Take it back to your lab table. Draw and color the result below.  
Show detail.

Picture 3:

Part 4: Take the candy and roll it into a ball. Place the candy into the plastic bag. Label the baggie with your names and class. I will be taking them home and be heating them. You will finish the lab tomorrow. Once you get your bag back, open it. Draw and color the result below.

Picture 4:

# Lab Questions

1. What did the starbursts that you began with represent?

---

---

2. In part one, you stood on the candies causing them to be stuck together. What type of rock was formed in picture 2?

---

---

3. What two things combined caused change in your rock in part 3?

---

---

4. What type of rock is formed in picture 3?

---

---

5. Where on Earth would rocks be exposed to conditions experiences in part 3?

---

---

6. What kind of rock is formed in picture 4?

---

---

7. In picture 4, can you see any evidence of the order the original sediments were stacked?

---

---

8. What would need to occur to the rock in picture 4 for it to become a sedimentary rock?

---

---

9. Why is this called the rock "cycle"?

---

---

Name \_\_\_\_ **Teacher Guide** \_\_\_\_\_

## Rock Cycle Lab: Modeling with Starbursts

Before we get started, fill in the table below.

### The Rock Cycle:

Type of Rock	<b>Igneous</b>	<b>Sedimentary</b>	<b>Metamorphic</b>
What you need in order to get this type of rock	Magma/lava	Sediments	Heat and pressure

We are going to model the rock cycle with starburst candies. Begin with 3 starbursts. They must all 3 be different colors. Unwrap your candies.

Part 1: You should have a plastic Ziploc bag at your lab station. Take your three candies and stack them (standing up) in the plastic bag. Place the brightest or darkest color in the middle. Color your candies below.

Picture 1:






Keeping your candies stacked neatly (this may take some practice), try to get as much air out of the plastic bag as possible. Place them in the middle of the bag. Close the bag, but do not seal it. **If the kids seal the bags they almost always pop, leaving a hole in the bag. You don't want this to happen.** They must stay stacked.



Part 2: Take your stacked starburst pieces and place them on the floor. Place a textbook on top of them. The candies should be under the center of the book. Stand on the textbook for 1 minute. Do not bounce or wiggle.

Step off the book. Pick up the book. Pick up your plastic bag. Carefully remove candies from plastic bag. Draw and color on the next page. Show DETAIL.

Picture 2:



Part 3: **You want to review this procedure step by step before the students do it. Do not allow students to throw their books onto the candy, it wrecks the bag.** Place your candies bag into the plastic bag. Do not seal the bag. One person from your lab table should hold the baggie (open end being held out of the water) in the hot water basin. Keep the candies under the water level for 30 to 45 seconds. Remove the bag from the water. Shake off excess water. Throw it on the floor.

Carefully, place a textbook on top of the bag. Stand on the bag. Do not jump on it or attempt to move it around in the bag. You simply want to apply some pressure. You only need to stand on it for about 5 seconds. Repeat this two more times. Take it back to your lab table. Draw and color the result below. Show detail.

Picture 3:



Part 4: Take the candy and roll it into a ball. Place the candy into the plastic bag. Label the baggie with your names and class. **It works well to put a piece of masking tape across the top of each bag and have students write with pen. Pencil and marker will not last during the transition to become an igneous rock.** I will be taking them home and be heating them. For heating at home: Place ALL bags (I've done 30 at a time) in a bowl of extremely hot water (I use tap water). Make sure the top of the bag is not submerged. Let them sit for a good 4-5 minutes. Pick up one at a time, and while keeping the top of the bag open, massage/mush the starburst ball in the bag. Keeping the bag open makes it much easier to mix. I've tried doing it with the bag sealed and it was difficult. I don't mix them all perfectly. I spend about 20-30 seconds per bag. You will finish the lab tomorrow. Once you get your bag back, open it. Draw and color the result below. **The bags are often sticky the next day. You will want to plan ahead so students have time to wash hands.**

Picture 4:





## Lab Questions

1. What did the starbursts that you began with represent? **The starbursts you began with represent sediments of different rocks.**
2. In part one you stood on the candies causing them to be stuck together. What type of rock was formed in picture 2? **Picture two shows a sedimentary rock.**
3. What two things combined caused change in your rock in part 3? **Both heat and pressure are applied in part 3. Heat came from the hot water and pressure came from standing on the bag.**
4. What type of rock is formed in picture 3? **Picture 3 is of a metamorphic rock.**
5. Where on Earth would rocks be exposed to conditions experiences in part 3? **Rocks are exposed to heat and pressure when they are pushed beneath the earth's surface.**
6. What kind of rock is formed in picture 4? **Picture 4 is of an igneous rock.**
7. In picture 4, can you see any evidence of the order the original sediments were stacked? **No, in the metamorphic rock you cannot tell the original order the sediments were stacks.**
8. What would need to occur to the rock in picture 4 in order for it to become a sedimentary rock? **Weathering and erosion are the forces that cause a rock to become sediments. You need sediments to form a sedimentary rock.**
9. Why is this called the rock "cycle"? **Because the rocks continuously change from one type to another.**