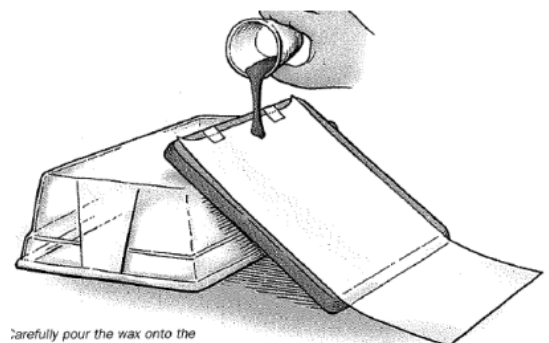


**Background:**

1. For most of us the mention of volcanic activity suggests danger and destruction! However, there are benefits to volcanic eruptions. What are some benefits of volcanoes?
2. What is the difference between magma and lava?
3. What is the scientific definition for melting?
4. How does magma form in the asthenosphere?
5. Why does magma rise from within the asthenosphere and move into the lithospheric plates?
6. What is the scientific definition for freezing?
7. What is the difference between something freezing and drying out?

**Procedure and observations:**

1. Get a container of ice cold water. Get hot wax in a plastic container.
2. Quickly pour all the wax in the container into the cold water. Let the wax cool until later.
3. Take a look at the black block of wax. What are some properties of solid wax? (1 point)
4. Put the lid with the wax paper at a slant on the plastic container.
5. Get your container of hot wax refilled with new hot wax.
6. Pour about 1/4 of the wax at the top of the slanted surface wax paper.  
Let the wax cool and make observations as it cools.
7. Pour another 1/4 of your wax at the top of the slanted surface of the wax paper and make observations.
8. Wait 10 to 15 seconds and pour another 1/4 of the wax on the same spot on the slope.
9. After another 15 seconds, pour the last wax on the same spot.
10. **Draw what the wax looks like on this diagram. (1 point)**
11. How did the movement of the wax on the slope differ from the movement on the flat area? (1 point)



Carefully pour the wax onto the

12. **Write** observations of cooled wax. (1 point)  
Wax on the slope

Wax on the flat surface

13. Now remove the wax from the water. Turn it upright and look at the underside.

**Write observations** of what the cooled wax looks like. (1 point)

**Draw** the underside of the wax. (1 point)

14. Clean up! PLEASE RECYCLE ALL THE WAX INTO THE YELLOW PLASTIC CONTAINER.

**Discussion:**

1. How does lava form rock? (1 point)

2. How do volcanoes grow larger? (1 point)

**Volcano types**

1. Get the pictures of different volcanoes.

2. Organize these cards into groups based on the appearance of these volcanoes and **not** on the area around them.

3. **List the card numbers** (on the back of each card) in **three** groups you decided on below in the wide space. (1 point)

4. **Describe** what **each** group of pictures has in common - why you put them in the same group.

Base these descriptions on the structure of the volcanoes and not on things like snow, water, or trees. (3 points)

4. Speculate as to how **each** of these **three** groups of volcanoes might have formed the way they did. (3 points)