

## **Let's Model A Glacier!**

### Materials Needed:

- 12 oz. paper cup
- Glacier putty (A white slime made from glue, water, and borax)
- Marker
- Stopwatch or phone to record time

### Procedure:

1. Based on the observations and discussions from the previous sessions answer the questions:  
Do glaciers move?  
What do you think will happen to the putty on the ramp?
2. Construct a sloping u-shaped valley from a paper cup by pushing in one side of the cup.
3. Roll the putty into a ball, then place it inside the top of the trough.
4. Pat the putty down so that the top is even with the sides of the trough (so that it doesn't overflow the trough on the sides).
5. Using the marker, draw two dots with a horizontal line beneath the two dots as shown below, on the flubber.



And draw a line on the cup.

6. time how long it takes the line on the flubber to reach the line on the cup.

7. Use your science journal to record:

Were your predictions correct?

What observations did you make?

How many seconds did it take for your flubber to reach the line marked on the cup?

What did you notice about the movement of the flubber (glacier)? How did the dash move compared with the dots you made on the flubber at the top of the ramp?

### **Glacier Putty Recipe**

4-oz bottle of white glue

4-oz water (fill empty glue bottle with water)

½ tsp borax

½ cup warm water

Empty the glue into a medium sized bowl. Fill the empty glue bottle with water, then mix the water into the glue in the bowl and set the mixture aside. Dissolve borax into the warm water. Slowly add the borax mixture to the glue mixture while stirring the glue mixture. As you stir, the putty will begin to form. Stir until a mass forms that pulls away from the sides of the bowl.

Transfer putty to an airtight container or zip closure bag.