

Recreate Glacier Movement

Supplies Needed:

Two 8 oz bottles of white Elmer's Glue
Box of Borax
Large mixing bowl
Measuring glass
Water
Plastic cup
Blue food coloring
Paper towels
Zip lock bag (to keep it in when you're done)
Cookie sheet

You'll make two separate batches of Flubber- one will be white and the other blue

Creating the Flubber:

1. Put 8 oz of Elmer's Glue in a large mixing bowl.
2. Fill the empty glue bottle half full of water and shake. Pour the water into the mixing bowl, mix the glue and water together. You will want the glue to have a runny consistency.
3. Measure $\frac{1}{2}$ cup of warm water in the measuring glass. Pour the water into a plastic cup and add one heaping teaspoon of Borax to the water. Stir and let sit for a couple of seconds. You will want to see about $\frac{1}{2}$ a teaspoon of Borax at the bottom of the glass that has not dissolved. Slowly add the Borax solution to the glue mixture a little at a time. You will feel the long strands of molecules start connecting. The Flubber should be a gooey, slimy consistency, but you don't want the Flubber to stick to the sides. You may need to add more Borax solution if the Flubber isn't the right consistency.
4. Mix the second batch of Flubber, this time add 10 drops of blue food coloring to the glue mixture before adding the Borax solution. Try to keep this batch the same consistency as the first.
5. Combining the blue and white batches together. Twist and fold the large pieces together until you get a swirl of blue and white Flubber.



Recreate Glacier Movement:

Prop one end of the cookie sheet up on a couple thick books to create a hillside. Lay the glacier on the cookie sheet and observe how the glacier slowly moves downward. The shape of the glacier and color pattern changes as it moves down the cookie sheet. You can adjust the slope of the cookie sheet to replicate how fast the glacier moves at different slopes.

Place various sizes of rocks on the cookie sheet as obstacles for your glacier. Depending on the size of the rock, it may be picked up and carried downhill or the glacier will flow around it.

To symbolize different terrain, you can use sandpaper or cooking spray to observe how the glacier moves.

To show how glaciers move across the terrain during different life cycles, you can put the glacier in the fridge for one hour to replicate how the glacier would move at the beginning of its life cycle. The glacier will move across the terrain slower at room temperature replicating how it would move at the end of its life cycle.

When you are finished playing, place the Flubber in a zip lock bag.

<http://www.mykidsadventures.com/glacier-goo-project/>

