

WestFest

SCIENCE & SUSTAINABILITY

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Build an Ice Sheet

Tuesday, October 18th, 9:30-10:15 a.m. & 6:00-6:45 p.m.

Register at <https://go.osu.edu/register4wf>

In this activity you will create a substance, flubber, that mimics how ice sheets move. Flubber can act as both a solid and a liquid. Because of this, its slow movements show you how ice sheets would have moved through Ohio.

Materials

½ cup white glue	6 tbsp warm water	1 ½ teaspoons Borax
⅓ cup cold water	Measuring cups	Measuring spoons
Ziploc bag containing this activity	Tablecloth or newspaper	Food coloring (optional)
Small bowl	(optional)	

Making Flubber

1. Set up your station by laying down **newspaper or a tablecloth** to help with cleanup
2. Pour **½ cup of glue** into a **Ziploc bag**
 - Using a bag can allow for easy mixing and storage
3. Add **6 tbsp of warm water** to the bag with the glue
4. In the **small bowl**, mix **1 ½ teaspoons of Borax** and **⅓ cup of cold water**
 - Optional: Add a small amount of **food coloring** to Borax mixture, we used blue to mimic ice!
5. Pour the Borax mixture into the bag containing the glue mixture
6. Begin mixing the two together by squishing it around with your hands. Continue for 2 minutes until well-mixed

** View video instructions on how to make flubber, as well as a preview of how we recreate glacial flow at go.osu.edu/flubber

Recreating an Ice Sheet in North America

Ice sheets are made of massive amounts of ice, usually the size of continents. There are only two locations with ice sheets today: Greenland and Antarctica. But, about 15,000 years ago, there was one in North America. The center of this ice sheet was over Hudson Bay in what is today Canada.

Take the flubber you made and squish it into a ball. Place the ball in the center of Hudson Bay, marked by the star on the Arctic Map below. Central Ohio is marked on the map with a yellow dot.

Describe what happens to your flubber ice sheet. What direction would it flow through Ohio?



Even though ice sheets are huge and made of solid ice, they flow really slowly. You can easily walk faster than they flow. They are much thicker than your flubber ice sheet, spanning between one half and one mile thick when they reached Ohio. These ice sheets carved out the Great Lakes leaving bedrock in places like the Glacier Grooves on Kelleys Island and dropped off a lot of the material that became the fertile soils that support Ohio agriculture.



Use your computer, tablet, smartphone, or VR headset to check out Kelleys Island in Lake Erie and some of the features left from the last ice age. Direct your browser to virtualice.byrd.osu.edu/kelleys_island/ or access it with the QR code.

Look at the maps on the Geofacts flier that show the parts of Ohio that were once covered by ice.

Did the ice sheet in North America cover a small or large part of Ohio? Was the place where you live once covered by glaciers? What about the places where your family members live?



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