Standard Supplies Sheet

IcePod *is a packet of instruments collecting highly detailed and accurate images of the polar ice sheets. '**Bergy Bits**' are simple activities introducing science concepts through student experimentation, tying these concepts to real glacier physics. Named for small pieces of ice found in both the Arctic and Antarctic, 'bergy bits' in nature are small pieces of floating ice that break from an iceberg, ice shelf or glacier.*

Note*:* Before you begin the activities, older students can read "Bits and Bytes: Introduction to IcePod Science" to gain a deeper understanding of the project, why it is important, and how this data is collected in the polar regions.

Supplies Needed

At home alternatives noted in italics

- 1/3 batch of glacier goo for each student set up (recipe options below)
- Lightweight plastic storage box: *Tupperware container*
- Section of mat board to fit inside each box: *Cardboard, small book or pamphlet*
- Laminated grid sheet (attached) – select metric or English units measurements.
  No lamination: stretch saran wrap tightly around the grid sheet and board and tape to stabilize.
- Foil or something to create a channel shape on the matboard surface
- Erasable marker pen: *white board markers or any washable markers*
- Toothpicks
- Small 6 inch ruler with both metric and English measures
- Stopwatch or timer
- Object to tape on board to create drag: *Legos, building blocks, any small toy*

Glacier Goo

Also commonly referred to as slime

Recipe 1:

Mix#1:

- One 20 oz cup
- 1 stirring stick
- 3/4 cup warm water
- 1 cup Elmers white glue
- one 8 oz cup

Mix#2:

- 1/2 cup warm water
- one stirring stick (for the 8 oz cup)
- 2 tsp. Borax powder
- 1 qt plastic zip lock ba

Mix # 1:
In the large cup, add 3/4 cup warm water and 1 cup glue. Stir until well mixed.

Mix # 2:
In the smaller cup, measure 1/2 cup warm water. Add 2 tsp. of Borax powder.
Stir until the powder is dissolved.

- Pour Mix 2 (the powder mix) into the glue mix stirring the entire time. Keep stirring until a glob forms and most of the water is mixed in. This happens quickly! Knead and work the mix for 2 – 3 minutes. Most, if not all, of the water will be incorporated into the mixture.
- Place the glacier goo in the zip lock bag.
- The mixture will store for a few months.

***Recipe 2*:**

Materials:

- 1 bottle of elmer's glue (6 oz)
- ½ teaspoon of baking soda
- 1 ½ Tablespoon of Contact lens solution
    - MUST CONTAIN: Boric Acid and Sodium Borate
    - **Renu Fresh** or **Equate** brands are both good

Steps:

- Get a bowl to mix your Glacier Goo ingredients
- Pour your entire 6 oz Elmer's glue into the bowl
- Add your ½ teaspoon of baking soda and mix thoroughly
- Slowly add in your contact lens solution. Add it in slowly and mix if possible so that you can adjust and ensure you do not add too much. We like to add a few teaspoons at a time and then mix.
- Knead and mix thoroughly before adding more as you do not want to add too much or your glacier goo will get too hard. You may not need the full amount so take this step slowly.
- Mix until your Glacier Goo forms and begins to harden.
- Take it out and knead, knead, knead! If it's not the desired consistency, keep kneading

Edible Glacier Goo (Slime) Options:
Option 1: https://littlebinsforlittlehands.com/edible-marshmallow-fluff-slime/
Option 2: https://hip2save.com/2018/07/26/diy-play-dough-pudding-slime/

**Disclaimer*: We have yet to test out these edible recipes so we are unsure of its viscosity or whether it will adequately flow for the experiments. However, you can try these fun experiments at home and let us know how it works!