**IcePod’s Bergy Bits Activities ~ Fun with Ice – Its Simple Physics!**

**CONCEPT: ‘Drag’ Redirects Ice Flow**

IcePod is a packet of instruments collecting highly detailed and accurate images of the polar ice sheets. Bergy Bits are simple activities that introduce 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.

**What is Drag?** Drag is a type of friction or resistance when forces act opposite to the motion of a moving object. Drag can result from two fluids or a solid and a fluid – note that glacial ice is fluid in its behavior. In this activity we examine ‘form drag’ or resistance from the shape or form of an object. Drag always decreases the velocity of the ‘fluid’.

**Gather Activity Supplies** – see supplies sheet for Bergy Bits activities

1) Tape an object just below the start line on the matboard. Place glacier goo above in a ball.
2) Let the glacier goo begin to flow and see how it moves on the board.
3) Russell glacier flows around a landform in western Greenland. (photo P. Spector)

**Glacier Gravity Activity:**
Select an object that fits across about 1/3 of the width of the container. Secure with packing tape to the board. Position the goo above it and let it flow for several minutes.

**Describe your observations:**

1) How did the glacial goo move when faced with the obstacle you placed in its path?
2) Explain how ‘drag’ was represented in this activity?
3) Image (3) shows Russell glacier, a section of ice that is in western Greenland, moving at the edge of the large ice sheet. Consider the activity you just did, how did you think it affects the speed of flow in this section of Russell glacier?

IcePod: www.ldeo.columbia.edu/icepod  More Activities: www.ldeo.columbia.edu/polareducation