

## Activity #2 - A Model Iceberg

### Concepts # 3, 4, 5

#3 Fresh water separates from salt water and freezes.

#4 Ice is less dense than liquid water, causing it to float.

#5 More of an iceberg is found below the water level than above.

### Objective:

Students will observe a model of an iceberg in simulated seawater, drawing inferences of the dangers to ships.

### Materials:

- balloon
- water
- freezer
- bucket
- ruler
- plastic container
- kosher salt in solution of 35 g per 1 liter of water (35 o/oo)

### Procedures:

1. Fill a round balloon with tap water and tie it off. Place in a container.
2. Place the container with the balloon in a freezer overnight.
3. Remove the rubber from the frozen balloon and place it into a saltwater filled bucket.
4. Measure the height of the iceberg top to bottom.
5. Measure the height of the iceberg above the water line.
6. Subtract the number above the water from the total length.
7. Determine a percentage of the ice above and below the water. (# on top/total length = decimal x 100 = %)
8. Make a drawing of your iceberg labeling the % above and the % below the water level.

### Evaluation:

- Why would an iceberg be dangerous if it floats into the shipping lanes?
- What could be done with floating icebergs?
- What are icebergs made of?