



HANDS-ON EXPERIMENTS

ICEBERGS

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Icebergs are chunks of ice that float in water. Where a glacier meets the ocean they can float off into the oceans and around the globe.

Sometimes glaciers calve off into lakes and iceberg lakes form. They float because they are less dense than the water they're in. When the water turns to ice, it expands slightly. The amount it expands is the same amount that you can see above the water, around 10%. This means 90% of the glacier is underwater.

In this experiment you can see how much that really is.

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INSTRUCTIONS

Step 1: In the prep session, fill up your water balloons. You can fill some with lots of water and some with not much water at all. Put them in the freezer to freeze over night;

Step 2: In the lesson, fill the water tanks up ready to put the icebergs in;

Step 3: Take the size measurements of your icebergs, their circumference, height, weight and any other parameters you wish to measure. You can label your iceberg too at this point;

Step 4: Add your iceberg to the tank and start the timer. Notice how much of the iceberg is below the water line. Through the lesson, make observations about your iceberg and timings. Try measuring and weighing your iceberg through the lesson. At the end, make your final measurement.

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EQUIPMENT

Water Balloons
A Water Tank or Fish Bowl
Water
Flexible Measuring Tape
Weighing Scales
Timer



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FURTHER INVESTIGATION

- What has happened to the iceberg?
- What happens if the Water Tanks have salt water in them like the oceans?
- Does it change the melt time if the tank is constantly stirred, like an ocean current?
- What happens if your sprinkle water onto the iceberg from above like rain?



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VIDEOS FOR THIS RESOURCE AT:

INTRODUCTION:



Clickable Link:

<https://youtu.be/uldcUMfRh5s>

CONCLUSION:



Clickable Link:

<https://youtu.be/oje2mmLszNA>

