



MELTING ICE SALT WATER AND FRESH WATER

Does ice melt faster in salt water or fresh water? Before starting the experiment, make a prediction on which ice cubes will melt faster.

Materials required:

- > Ice cubes
- > Fresh water
- > 1/4 cup salt
- > 2 clear containers

Instructions:

1. Fill one container with cool fresh water from the tap.
2. Fill one container with cool fresh water from the tap, and add 1/4 cup salt to it.
3. Hypothesise about whether the ice will melt fast in fresh or salty water. Consider the implications this has on global ocean circulation, in particular, the melting ice sheets at the poles.
4. Get students to split up based on their predictions to opposite sides of the experiment viewing (so they can't change their hypothesis).
5. Add ice to each container.
6. Watch which ice melts faster, the ice in the salt water or the ice in the fresh water.

Activity video walk through available here: <https://bit.ly/321ZrgN>

Answer:

Assuming equal temperature, ice melts faster in salt water because salt water has a lower freezing point than fresh water, so the ice cube will have to absorb less heat in order to melt in salt water than in fresh water.

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