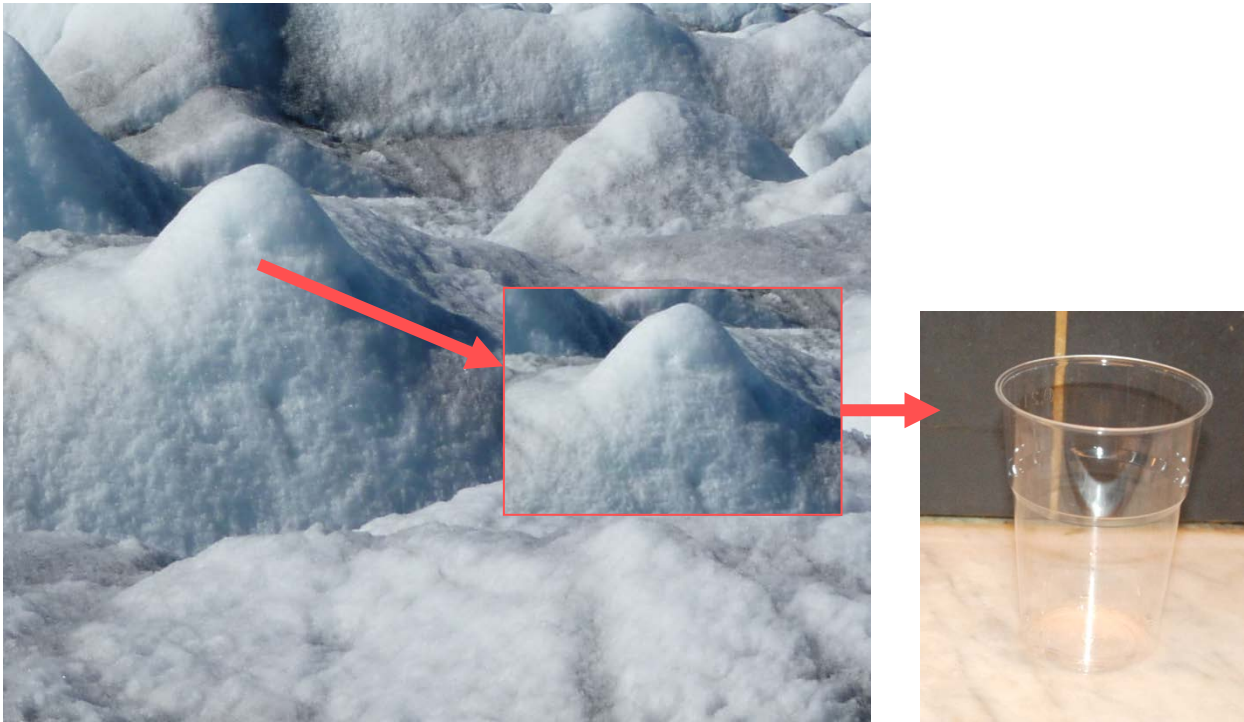


How does ice melt?

What is the fastest way to melt an ice cube?

Try to melt an ice cube. Imagine that the ice cube is a piece of ice sheet. Your job is to find out the fastest way to melt the ice cube. . .



We will try 5 different methods for melting ice cubes in

1. Room temperature
2. Hot air
3. Cold water
4. Hot water
5. Saltwater

Write down what you think will happen faster. Think about

- Will ice melt faster in cold or hot air?
- Will ice melt faster in cold or hot water?
- Will ice melt faster in saltwater or freshwater?
- Will ice melt faster in air or water?

Experiment

Each group will need:

- 5 ice cubes, leave them in the freezer until you need them
- 5 cups, glass or plastic
- 1 teaspoon of salt
- A Stop watch
- A place with warm air, a radiator for example



Cup 1: Must be empty

Cup 2: Must be empty but in a warm place for example on top of the radiator

Cup 3: Has to be half-filled with cold water from the tap, as cold as you can get it

Cup 4: Has to be half-filled with hot water from the tap, as hot as you can get it

Cup 5: Has to be half-filled with cold water from the tap and a teaspoon of salt mixed in

When all cups are ready, get the ice cubes from the freezer and put one cube in each cup and start the stop watch. Write down the time when each ice cube has melted.

Results:

	Cup 1	Cup 2	Cup 3	Cup 4	Cup 5
Time					

Discussion:

Which ice cube melted away first? How does this compare with you expectations?

Discuss what your results mean in the real world:

- What are the consequences for the ice on land, if the air becomes warmer?

- What are the consequences for the ice in the ocean if the ocean will become warmer?
- What are the consequences for the ice in the ocean that the water is salty?
- What difference does it make for the ice to melt on land or in the water?