

# Fishing for Ice Cubes

Try to catch and lift an ice cube using a piece of string, some salt, and not a single knot!

## Materials

- some ice cubes
- 1 length of string
- 1 pie tin

## Instructions

1. Rinse the ice cube under water for just a second and then lay it in the pie tin.
2. Place the string directly on top of the ice cube.
3. Sprinkle a little bit of salt over the surface of the ice cube and the string.
4. Count to five and try to lift the loose end of the string and the ice cube with it.

## How does this work?

Salt lowers the temperature at which water freezes, so adding salt to ice makes it melt.

Sprinkling salt on top of the ice cube melts some of it into water, which is soaked up by the string. The ice underneath the string, stays frozen because the salt doesn't touch it. When the water that was absorbed by the string reaches the ice underneath the string, it has left much of its salt content behind it and freezes, sticking to the ice cube.

## Food for Thought

- Salt is used to melt ice in the winter. Do you think sugar will work? How about flour? Test out other things and see what melts the ice cube: flour, sugar, baking soda, sand. What else?
- Why don't your car tires freeze to the road when there is salt on the ice? Get a rubber band and try it! What if tires were made out of string? What do you think would happen?
- Why do you think you mix salt with ice when you make homemade ice cream?