

Fishing for Ice

Challenge your friends and family to pick up ice cubes using just a piece of string. Then show them how it is done using a little bit of science.



What you need

- Glass
- Ice
- Water
- A length of string
- ½tsp salt

How does it work?

This experiment is all about melting and freezing temperatures. Ice melts and water freezes at around 0°C. When you add the salt, the ice starts to melt. This is because salt lowers the freezing point of water. The freshly melted water then refreezes around the string, trapping the string within a layer of freshly frozen ice. So, when you come to lift up the string, the ice cube is attached to it.

DID YOU KNOW?

Ice floats in water because ice is less dense. Density is how compact something is. Water is one of few substances that are less dense as a solid than as a liquid.



1 Add some ice to a glass of water. Dip one end of the string into the water to wet it, then lie it across the top of one of the ice cubes.



2 Pour salt on top of the string where it rests on the ice cube and leave for a minute. Allow a little more time if the string doesn't stick to the ice cube.



3 Salt melts the ice a little and water refreezes around the string. Once this happens, you will be able to carefully lift the ice cube out of the glass.