

## Ice Cold Magic

When the sun is shining it feels great to pop some ice in your drink, right? Well, next time you cool a beverage take 30 seconds and try out this simple but magical experiment.

### What do I need:

- Salt
- Ice cube
- Glass of water
- String
- Plate (optional but makes it less messy)

### How do I do it?

**STEP 1** - Challenge a friend or family member and see if they can lift up an ice cube just by placing a piece of string on it?

**STEP 2** - Wet your string and push it onto your ice cube. Can you lift it up?

**STEP 3** - No matter what they try it isn't possible to lift your ice cube up with just a piece of string. That's where the science comes in!

**STEP 4** - Make sure your string is wet and place it on top of your ice cube. Then sprinkle half a tea-spoon of salt on top of your string.

**STEP 5** - Wait for 30 seconds...

**STEP 6** - Slowly and gently lift your string into the air and watch (in amazement!) as the ice cube lifts up with it.

**STEP 7** - Have a good think about what's going on!?!

### What's going on?

That certainly looked magical but there's some real science going on. It was only possible to lift up our ice cube when we added our salt. So what is it about adding the salt that made the difference?

The salt lowers the freezing point of the water and this means that the ice around the string melts. That's why in the winter we put salt on the roads, as it causes the ice to melt!

When the ice freezes over again it freezes around the string and connects our string to our ice cube. As long as we're really careful when we lift our string we should be able to "magically" lift our ice cube too!

### More Fun Please - Experiment like a real scientist!

- What type of salt works best? Does it make any difference?
- What could you use instead of string?
- What's the biggest ice cube that you can lift?
- What's the longest Bubble Worm you can make?

