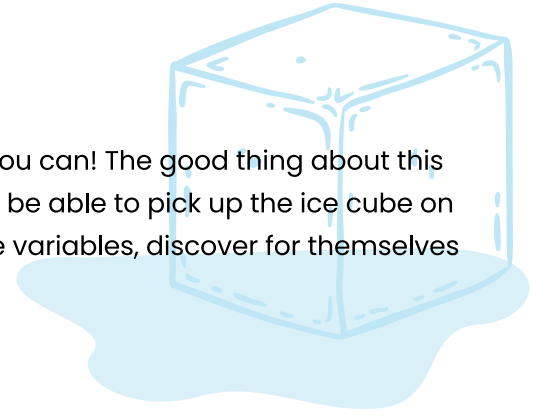


# Ice Fishing

Can you “catch” an ice cube with a piece of string? If you utilize science you can! The good thing about this science activity is that a lot of things can go “wrong” and your child won’t be able to pick up the ice cube on the first few tries – causing them to have to try again, experiment with the variables, discover for themselves what works and what doesn’t; just like, well, actual scientists do!



## MATERIALS:

Empty can (make sure it’s not one that can cut their hands)

Water

Ice cubes

String or twine, about 12” long

Table salt

Small bowl or cup to hold the salt

## DIRECTIONS:

Fill a can with water.

Place about 6 ice cubes in the can.

Give your child the piece of string, tell them to lay the string over the ice, and ask them to see if they can pick up an ice cube with it. Are they able to “catch” one?

Show them the salt. What if we used salt in this attempt at “ice fishing”? Do they think it would make any difference? How? Why or why not?

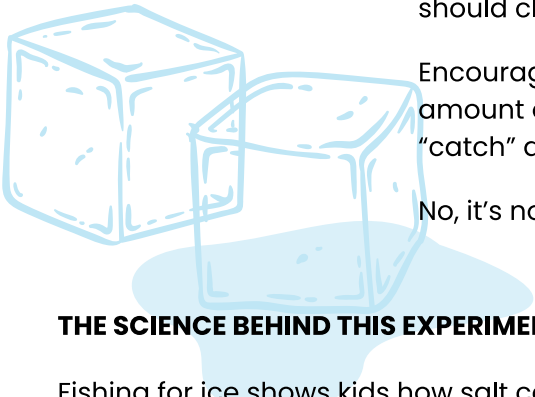
Next, have the child place the string over the ice cubes. Instruct them to sprinkle a small layer of salt over the string on the ice.

Ask them to observe the ice while you all count to about 30. Is anything happening to the ice? What?

After about 30 seconds, ask them to pick up the string again. The ice cube should cling to the string. But if it doesn’t...

Encourage the child to experiment with the variables (the amount of salt, the amount of time) to see what works best, until they are “magically” able to “catch” an ice cube with a piece of string!

No, it’s not magic – it’s science!



## THE SCIENCE BEHIND THIS EXPERIMENT:

Fishing for ice shows kids how salt can affect the properties and temperature of ice.

Water freezes at 32 degrees F. When salt is added to ice however, it lowers the freezing point of the ice to much lower than that, and the ice starts to melt.

Eventually, however, the cold water around the ice cube causes it to refreeze, forming ice over the string. When this happens, the string is now stuck and you can lift the cube out of the water!

As mentioned above, a few things can go wrong with this activity. If you use too much salt, the ice will melt too fast and the string won’t stick. If you don’t wait long enough for the ice to form, the ice cube will fall off quickly as you pick it up. And so on.

