SUPERCOOL WATER!

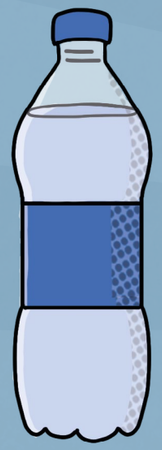
You might think that the only place you will find water in the solar system is here on Earth. Surprisingly, there is water out in space, and much closer than you might think. The Moon, comets and many other planets and moons have water, mainly in the form of ice.

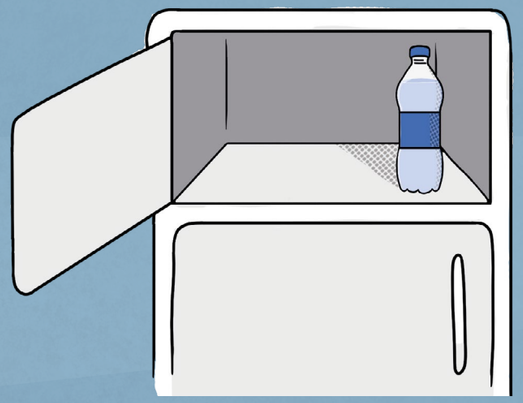
You wouldn't expect to find running water on Mars, because it's surface temperature is so cold (on average -55 °C). But scientists have found evidence of salty water flowing on the surface. If water has salt (a mineral) in it, then it can be supercooled. This means it stays liquid at a lower temperature than ordinary water. In this activity, you can make supercooled water.

YOU WILL NEED:

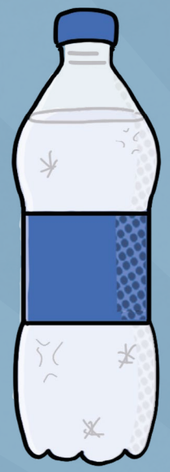
- a 500 ml bottle of still mineral water
- a freezer
- an ice cube
- a plate

1 Leave a bottle of still mineral water to stand for a few minutes, somewhere that it will not get knocked or disturbed.

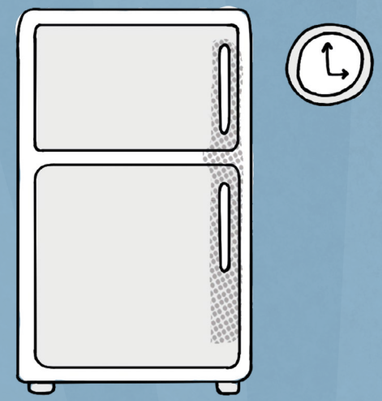




2 Place the mineral water carefully in a freezer.



3 Leave the bottle of water in the freezer for an hour. Make sure it doesn't get knocked.



4 After an hour, carefully take the bottle out of the freezer. It should be very cold, but not frozen. If it is frozen, then try again with a second bottle for a shorter amount of time.

5 Put an ice cube on a plate. Pour a little water from your bottle on to the ice cube. If the water is supercooled then you will see a tiny tower of ice start to form. The ice cube gives the ice crystals something to form on.

Mineral water can be supercooled because it has minerals, such as salts or calcium, in it and it does not have any impurities in it.

SPACE FACT

It is thought by many scientists that the water on Earth came from comets smashing on to the surface.