

DOES SALT WATER FREEZE?

You'll need

Two small plastic bottles

Water

Salt

A freezer



Instructions

Place the same amount of water into each bottle.

Add two tablespoons of salt to one bottle and label the bottle.

Label the second bottle.

Place both bottles in a freezer and check them every 30 minutes.

You should find the salty water isn't as frozen as the plain water.

What's going on?

Freshwater freezes at 0°C . The presence of salt lowers the freezing point of water. The higher the salt content in the water, the lower the freezing point.

Seawater freezes at around -1.8°C , although this varies depending on the salt concentration.

Science Sparks TM

Adult supervision required. You are responsible for your own safety.

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NAME

Date

Does salt water freeze?

Aim - to find out if adding salt to water lowers its freezing point.

I will need

Prediction

The bottle containing

will freeze faster than the bottle

containing

Method

Results

The bottle containing

.....

froze faster than the
bottle containing

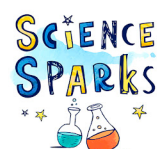
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My prediction was..

Correct

Incorrect

Notes



Results Table

Salty Water



	30 minutes	60 minutes	90 minutes	120 minutes	150 minutes	180 minutes
Not frozen						
Starting to freeze						
Half Frozen						
Completely Frozen						

Plain Water



	30 minutes	60 minutes	90 minutes	120 minutes	150 minutes	180 minutes
Not frozen						
Starting to freeze						
Half Frozen						
Completely Frozen						

Conclusion

The bottle containing

froze faster than the bottle containing

