

Salty Freezing Points

Need:

4 Plastic Tubs or Cups

8 teaspoons Salt

Freezer

Thermometer

Spoon



Decide on your hypothesis:

Adding salt to water will __increase / decrease__ the freezing point of water

How to:

Half-fill the 4 cups with water

Check all have an equal amount of water in them

Number your cups 1-4

Add in salt amounts as follows and stir to dissolve the salt into the water

Cup 1 No added salt - This is your control

Cup 2 One Teaspoons

Cup 3 Three Teaspoons

Cup 4 Five Teaspoons

Place the cups & thermometer in the freezer

Observe the cups every few minutes until a thin layer of ice forms on the top of the water

Record the temperature that this happens for each cup

Observations:

Cup #	# Salt	Temperature ice layer formed
1	0	
2	1	
3	3	
4	5	

Analysis:

Look at your results

Compare the result of 2, 3, 4 against your control cup 1

Did adding salt create a liquid that froze faster or slower than plain water?

Did adding more and more salt have an effect on freezing time?

Conclusion:

Adding salt to water will _____ the freezing point of water

