

# Sugary Freezing Points

## Need:

4 Plastic Tubs or Cups

8 Sugar Cubes

Freezer

Thermometer

Spoon



## Decide on your hypothesis:

*Adding sugar 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 sugar amounts as follows and stir to dissolve the sugar into the water

Cup 1 No added sugar - This is your control

Cup 2 One Sugar Cube

Cup 3 Three Sugar Cubes

Cup 4 Five Sugar Cubes

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:

<i>Cup #</i>	<i># Sugar Cubes</i>	<i>Temperature ice layer formed</i>
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 sugar create a liquid that froze faster or slower than plain water?

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

## Conclusion:

*Adding sugar to water will \_\_\_\_\_ the freezing point of water*

