

# Cooling curve of.....

## Aim

To find the cooling curve and melting point of.....

## Equipment

Explain the equipment you are going to use and why you will use it. You could include a diagram.

## Calibration of thermometers

Describe how you will calibrate the thermometer for 0 and 100°C.

	Trial	Electronic thermometer recording	Liquid filled thermometer recording
Ice	1		
	2		
	3		
	Average		
Boiling water	1		
	2		
	3		
	Average		

## Safety precautions

What will you do to stay safe – you have several things to comment on; heating things, the chemical you are using and general lab safety.

## Method

Outline what you did

## Table of results

Make sure you include UNITS in your table

## Graph of results

This will be on a separate bit of graph paper and done by hand – make sure you have 3 titles on in and UNITS

## Results

Calculate 3 gradients (one at the start, one where the line is straight, and one after)

## Conclusion

Describe what is happening in your graph as the time goes on, you want to think about how fast it is cooling at each 3 points and describe what is happening to the molecules and why, you may want to mention the type of intermolecular forces which are forming.

## Evaluation

Compare your melting point to the class average AND the quoted value (you can look it up)

Find the percentage difference between your melting point and the quoted value and class average

Comment on how you tried to be as accurate as possible

Comment on what you could do to improve on the accuracy