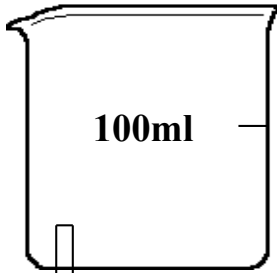


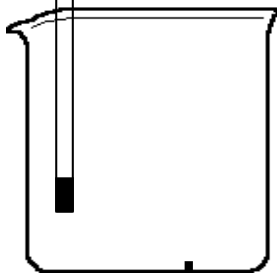
Topic	Dissolving and temperature	Level	KS3 (or any course for students aged 11-14)
Outcomes	<ol style="list-style-type: none">1. To investigate how temperature affects the time taken for a sugar cube to dissolve2. To plot a line graph of your results		

AIM

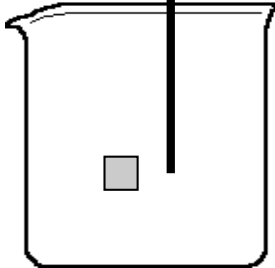
METHOD



1. Add 100 ml of water (see table below) to the beaker. BE CAREFUL OF HOT WATER.



2. Record temperature of the water (fill in table). REMOVE THE THERMOMETER.



3. Add one sugar cube and record the time taken for the cube to dissolve with stirring (fill in the table with the time).

Now repeat steps 1-3, this time use new water as described in the table below.



RESULTS

Water to add to beaker	Temperature of water (°C)	Time taken for sugar cube to dissolve (seconds)
100 ml of kettle water		
75 ml of kettle water and 25 ml of tap water		
50 ml of tap water and 50 ml of kettle water		
75 ml tap water and 25 ml of kettle water		
100 ml of tap water		

1. Plot a graph of your results.
2. Describe what your graph shows.
3. Are your results reliable? Explain your answer.
4. Why is it important that the total volume of water in each experiment was 100 ml? Does this make the experiment reliable or valid?

Graph to show how temperature affects the time taken for a sugar cube to dissolve in 100ml of water.

