

Assessment tasks

6.1 Formal assessment





Chemistry

Heating and cooling curve of water

Name: _____

Date: _____

Aim: To see how the temperature changes over time when ice is heated from -5°C until it boils and evaporates.

Investigative question:

Hypothesis:

Variables:

Fill in the items or quantities that match the headings in the table below.

Independent variable (Which is changed.)	Dependent variable (Which is measured.)	Controlled variable(s) (Which remain(s) the same.)

Method:

1. Place a sensitive thermometer in a glass beaker of ice.
2. Heat the beaker.
3. Use a stopwatch and take a temperature reading in $^{\circ}\text{C}$ every 2 minutes.

Observations:

Complete the table for the following time intervals. (Adjust time intervals if necessary.)

Time (minutes)	Temperature ($^{\circ}\text{C}$)	Time (minutes)	Temperature ($^{\circ}\text{C}$)
0		18	
2		20	
4		22	
6		24	
8		26	

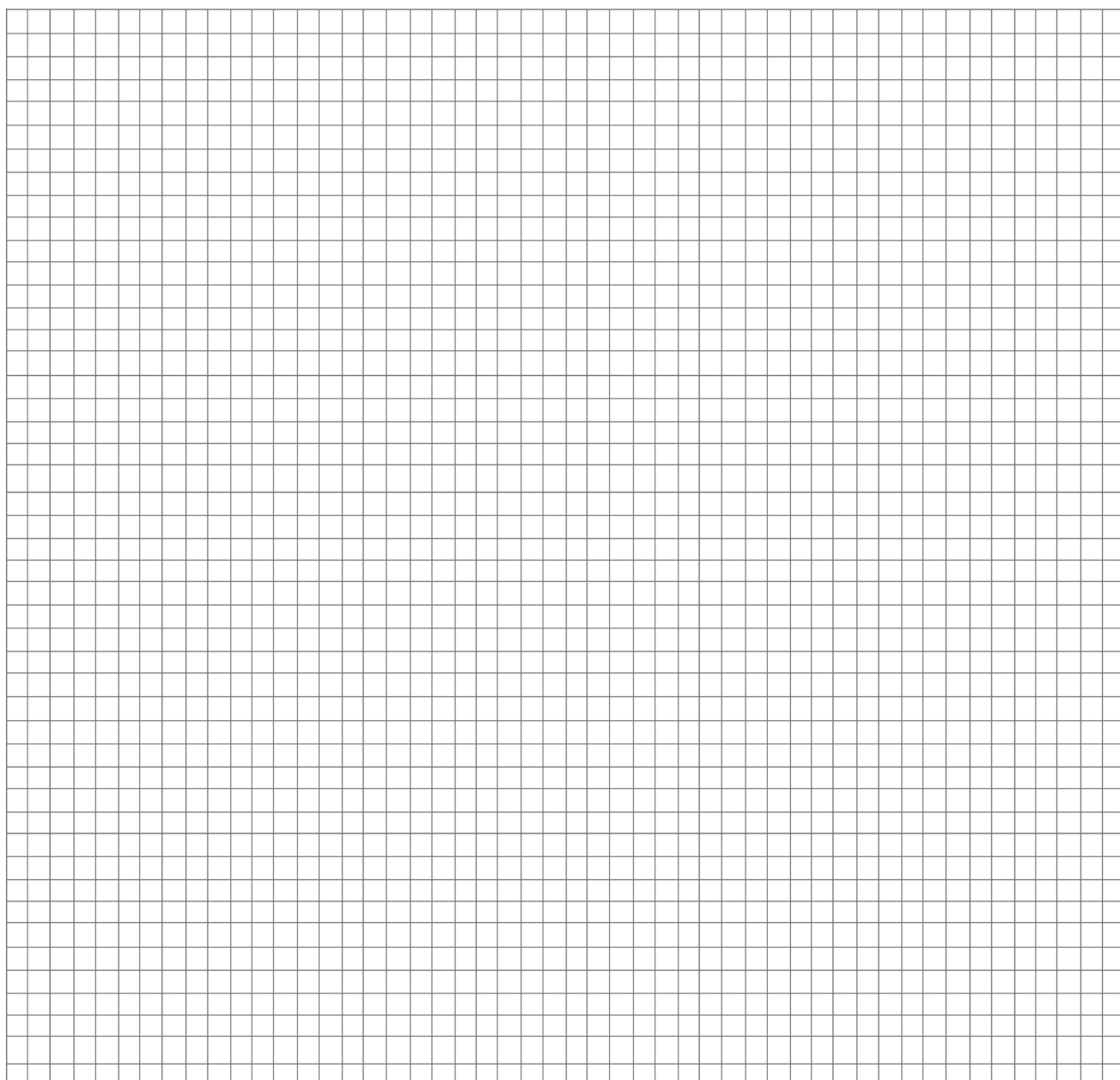




Time (minutes)	Temperature (°C)	Time (minutes)	Temperature (°C)
10		28	
12		30	
14			
16			

Results:

Draw a graph of temperature (°C) versus time (minutes) to determine the temperature changes over time. The shape of the graph will help you to come to a conclusion.





Conclusions:

Complete the diagram below to summarise the findings of this investigation.

