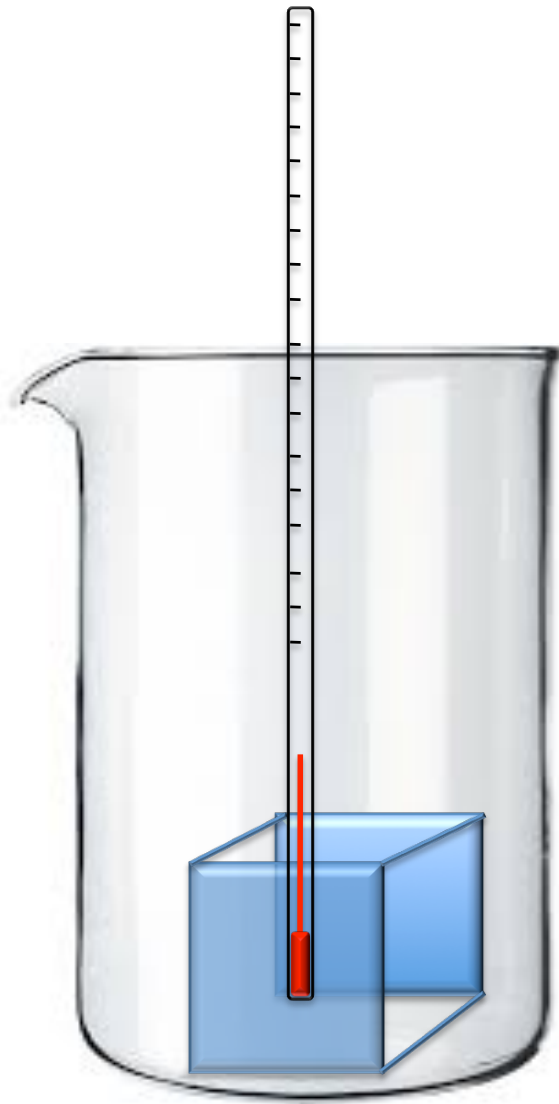
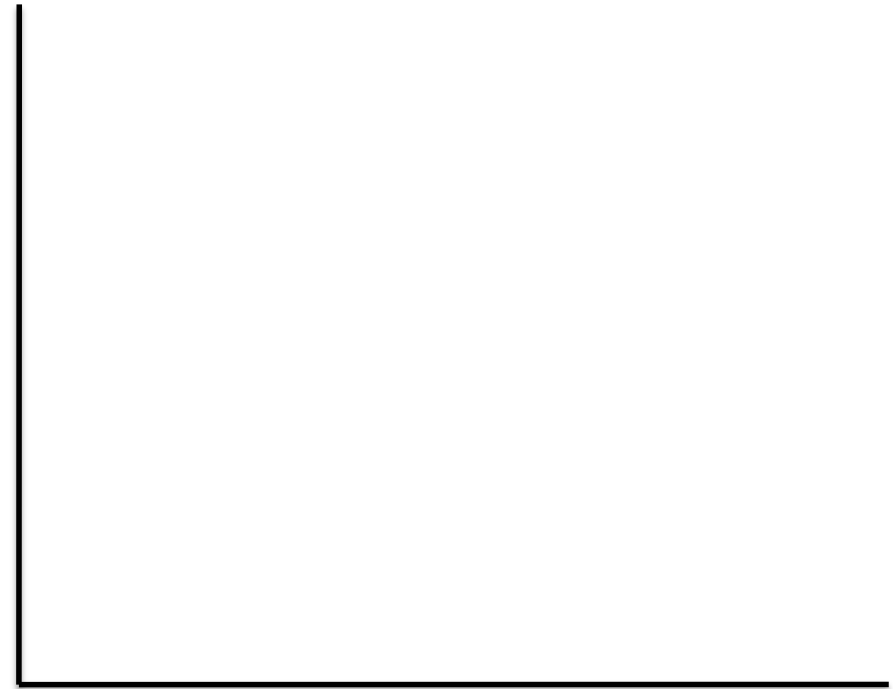


Topic	Heating curves	Level	Key Stage 3 (or any course for students aged 11-16)
Outcomes	<ol style="list-style-type: none">1. To make a prediction about what would happen to the temperature of an ice cube as we heat it2. To be able to draw a heating curve for water3. To understand why the temperature of a substance does not change during a state change		



Temperature ($^{\circ}\text{C}$)

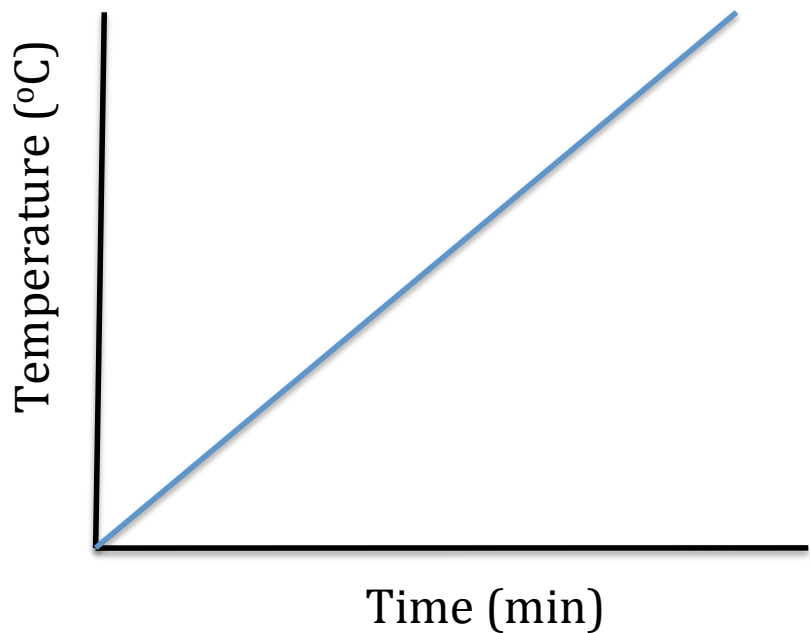


Time (min)

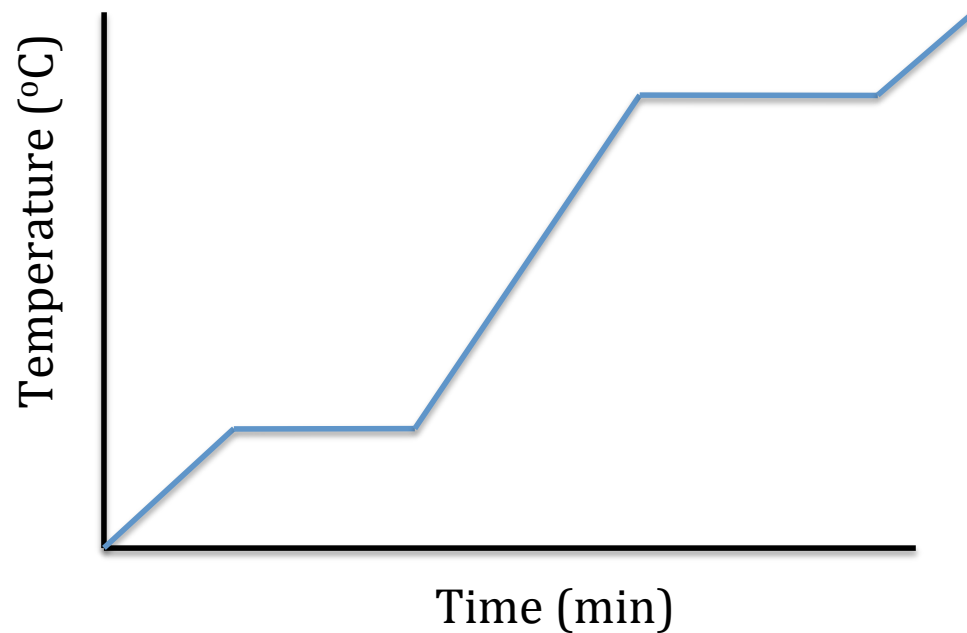
An ice cube is heated in a beaker. Sketch a graph to show what **you think** would happen to the temperature of H_2O over time.

In pairs, discuss which graph best describes the change in temperature of the H₂O.

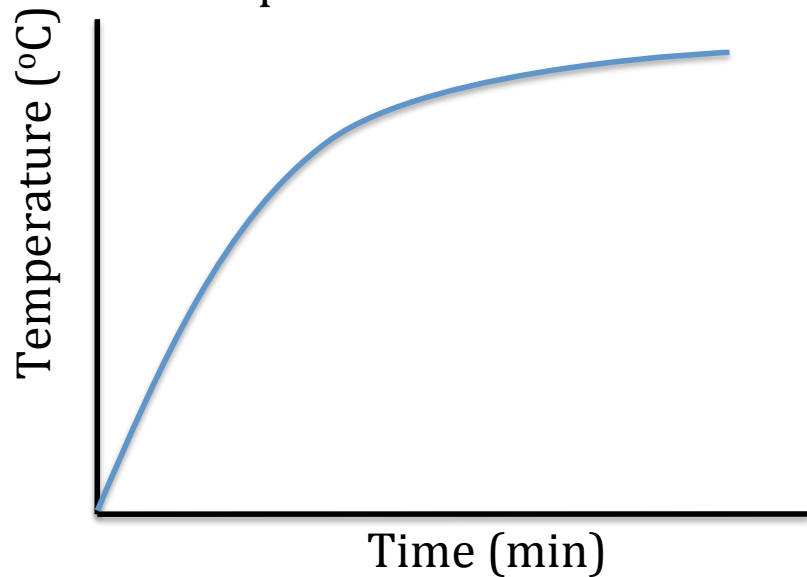
Graph A



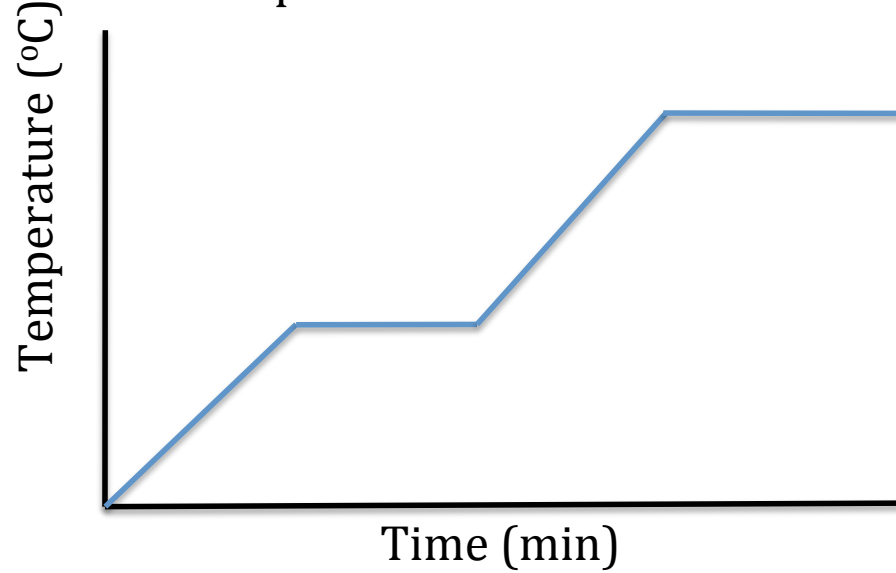
Graph B



Graph C



Graph D



Questions to think about

1. Why does the temperature of a substance not change when it is changing state?
2. The melting temperature of H_2O is $0\text{ }^\circ\text{C}$.
The freezing temperature of H_2O is $0\text{ }^\circ\text{C}$.
At $0\text{ }^\circ\text{C}$ is H_2O a solid or a liquid?
3. Does water refer to $\text{H}_2\text{O}_{(l)}$ only, or is ice water too?