

- 2 A solid bar of chocolate is taken from a refrigerator.



(Source: © MarySan/Shutterstock)

- (a) The temperature of the chocolate bar is 5°C .

Describe the arrangement and motion of the particles inside the chocolate bar.

(2)

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- (b) The chocolate is heated at a constant rate until the temperature reaches 45°C .

The chocolate has a melting point of 32°C and a boiling point of 55°C .

- (i) Describe the motion of the particles in the chocolate when the chocolate is at a temperature of 45°C .

(2)

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- (ii) Which of these is used to measure the temperature of the chocolate?

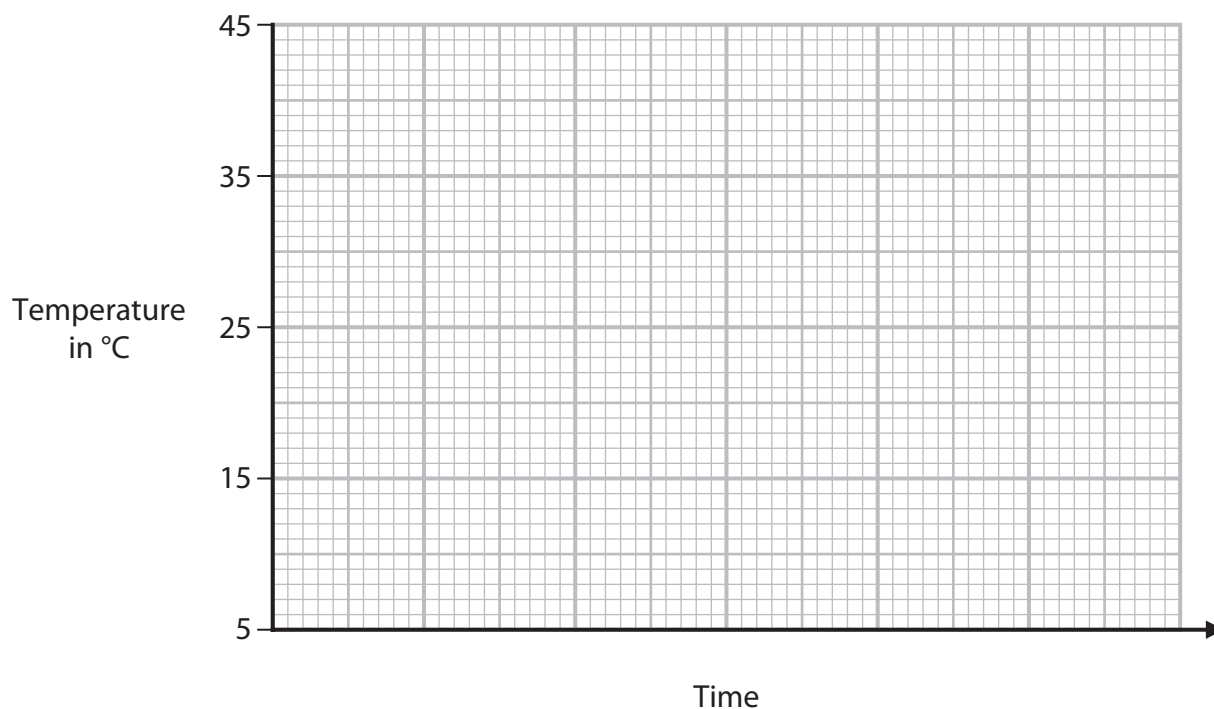
(1)

- ☐ **A** balance
- ☐ **B** ruler
- ☐ **C** stopwatch
- ☐ **D** thermometer



- (iii) Use the axes to sketch a graph of how the temperature of the chocolate changes with time when it is heated from 5°C to 45°C .

(3)



(Total for Question 2 = 8 marks)



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