Read and interpret line graphs
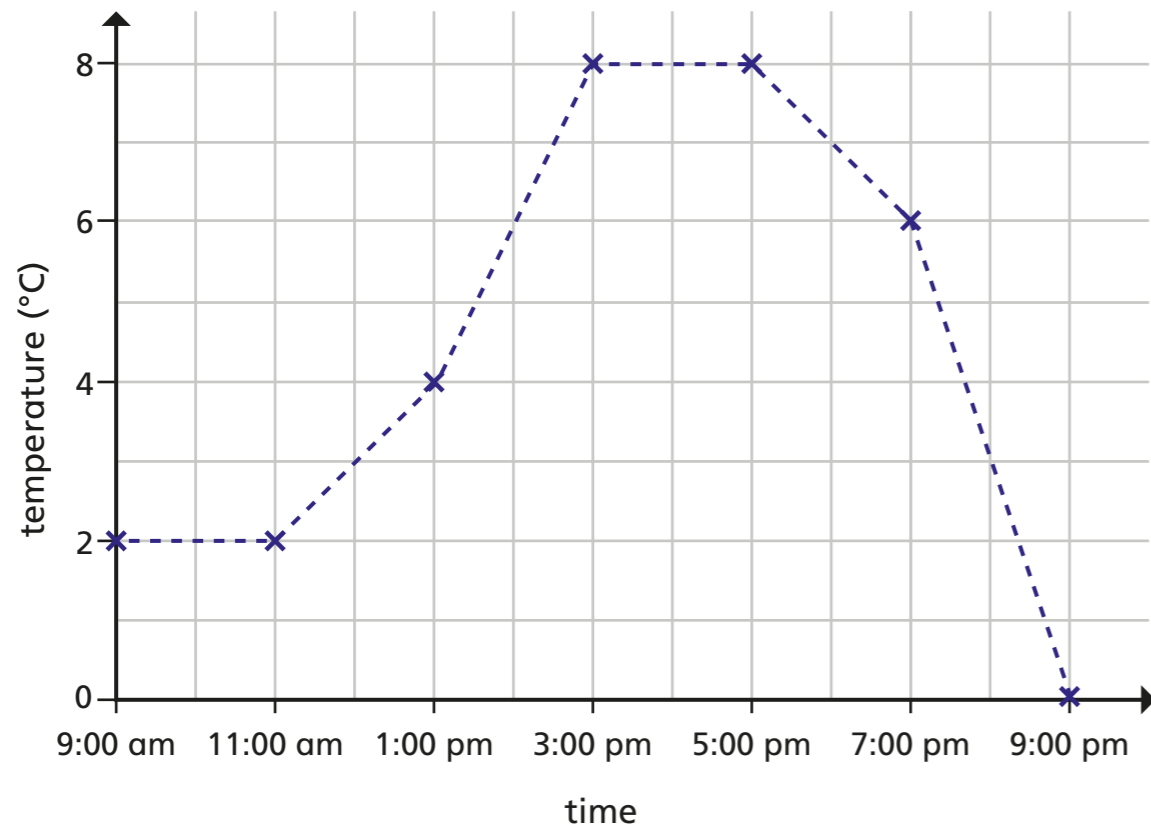
1 The graph shows the temperature in Birmingham on one day.

a) What was the temperature at 1:00 pm?   `4°C`

b) What was the difference in temperature between 11:00 am and 1:00 pm?   `2°C`

c) Between which times was the temperature increasing?
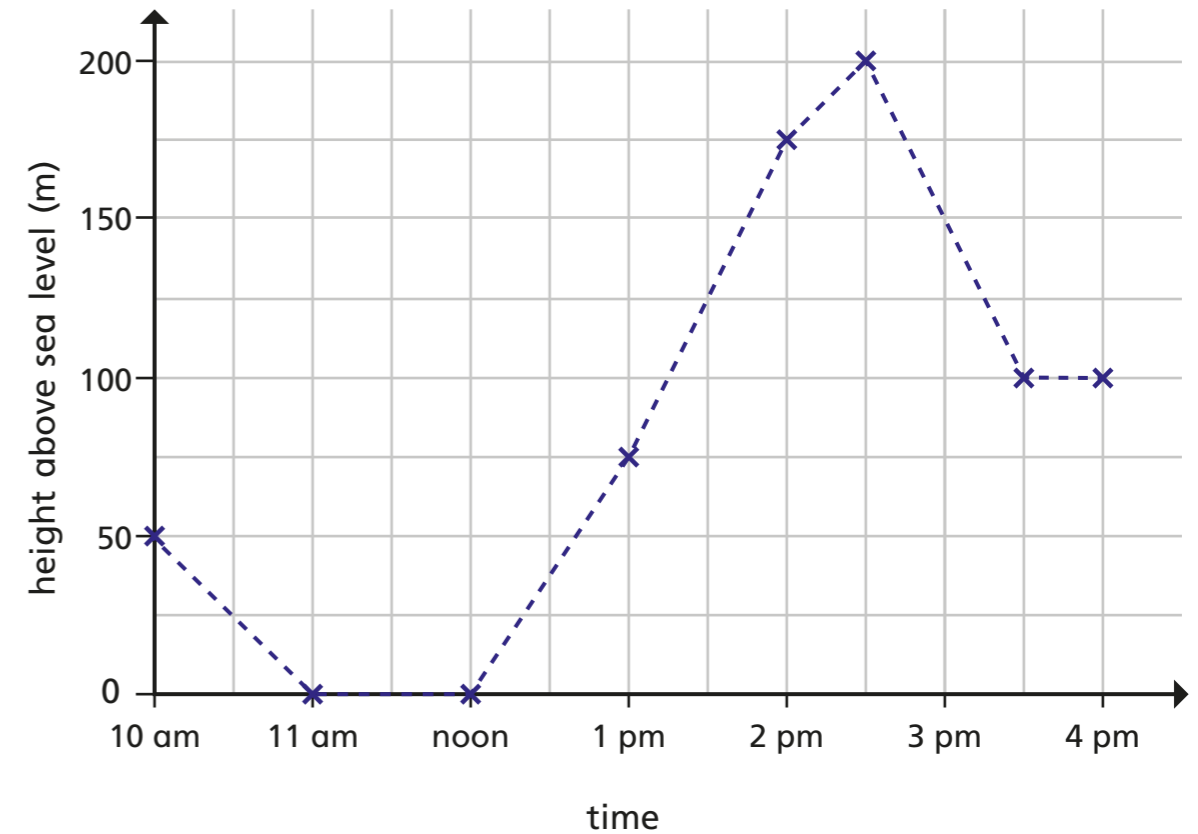
   _11:00 am_ and _3:00 pm_

d) How often was the temperature recorded?

   Every 2 hours

2 Aisha goes for a walk.

The graph shows the height above sea level during her walk.

a) What was the height above sea level where Aisha was walking at 2 pm?   `175 m`

b) At what time in Aisha's walk was she standing 200 m above sea level?   `2:30pm`

c) Part of the walk was along a beach.

Between which times did Aisha walk along the beach?

   11am and noon

How do you know? Talk about it with a partner.

d) Did the walk start and finish in the same place? Explain how you know.

   No — she was at a different height above sea level at the end compared to the start.

3 The graph shows the values of two cars over time.

car 1

car 2

value (£)

year

a) In which year was the recorded value of the cars the same?

2002

b) In which two years was the difference in the recorded values of the two cars the same? <u>2012 and 2020</u>

c) Which car's value decreased the most between 1996 and 2020? <u>car 1</u>

d) For approximately how many years was the value of car 2 greater than the value of car 1?

approximately | 10 | years

e)

The value of car 2 halved between 1996 and 2012

Do you agree with Jack? <u>No</u>

Explain your answer.

<u>It was £15,000 in 1996 and £10,000 in 2012</u>

<u>£10,000 is not half of £15,000</u>

4 Here is a line graph.

a) What could be happening in the graph? Write a story to match it.

<u>Various answers.</u>

b) What would the x-axis be labelled for your story?

c) What would the y-axis be labelled for your story?

d) Write two questions that you could ask a partner about your story.

White Rose Maths