

Line Graphs

Line graphs usually show a connected series of data. Unlike bar charts, they allow us to estimate data between the points that are plotted.

1) This data shows how quickly a beaker of water was heated, using a Bunsen burner:

Time (mins)	Temperature (°C)
0	18
1	25
2	36
3	45
4	54
5	61
6	69
7	76
8	82
9	89
10	93

a) Plot the data in the form of a line graph.

b) What was the starting temperature?

c) Use your graph to estimate the temperature after $5\frac{1}{2}$ minutes.

d) What was the approximate temperature after 90 seconds?

2) The following data shows how far a Mountain Biker travels during an off-road race:

Time (hours)	Distance (miles)
0.0	0
0.5	6
1.0	10
1.5	15
2.0	19
2.5	22
3.0	24

- a) Plot the data as a line graph.
- b) What distance did the rider cover?
- c) Approximately how long did it take to ride 12 miles?
- d) What can you say about his speed (in m.p.h.) as the race went on?
- e) How do you explain this?