

YR5 Knowledge Organiser - Statistics

Key Concepts

- Solve comparison, sum and difference problems using information presented in a line graph
- Complete, read and interpret information in tables, including timetables
- Decide which representations of data are most appropriate and why

Key Vocabulary

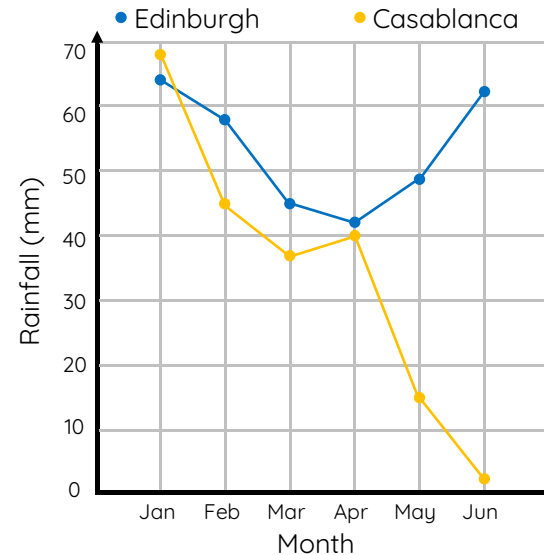
- discrete / continuous data
- line graph
- timetable
- comparison / sum / difference
- scale
- axis / axes



Line Graphs

Line graphs are used to present continuous data. We can build on our learning in Year 4 to read, interpret and draw line graphs with one or more sets of data. It is important to choose an appropriate scale to ensure that the data is presented in the clearest way possible.

Average Rainfall in Edinburgh and Casablanca



We can ask and answer questions about line graphs.

In which month is there less rain in Edinburgh than Casablanca?

January

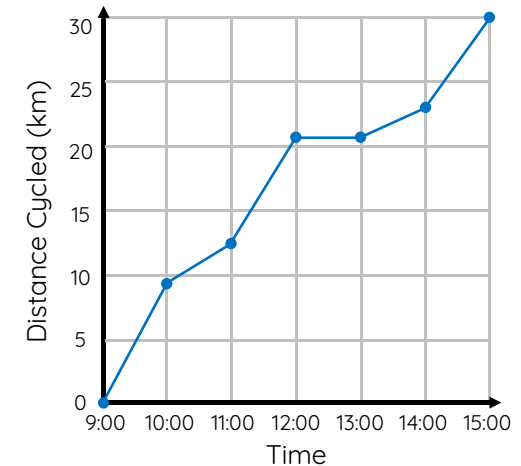
How much rainfall is there on average between January and June in Casablanca?

$$68\text{mm} + 45\text{mm} + 37\text{mm} + 40\text{mm} + 15\text{mm} + 2\text{mm} = 207\text{mm}$$

Solving Problems on Line Graphs

We can build on our understanding of line graphs by using them to solve problems.

Bike Ride



Between what times did the cyclist have a break? How do you know?

They must have had a break between 12:00 and 13:00 because the distance cycled stayed the same.

At approximately what time had the cyclist travelled 5km?

The cyclist had travelled 5km at approximately 9:30.



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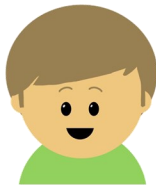
Two-Way Tables

Two-way tables show two different sets of data which are presented horizontally and vertically.

Cinema Ticket Sales

	Saturday	Sunday	Total
Animal Park	259	237	496
In the Jungle	597	554	1,151
Starlight	486		857
The Magician	409	416	825
Total		1,578	3,329

We can use our addition and subtraction skills to calculate missing information and complete tables.



" $259 + 597 + 486 + 409 = 1,751$ so there were 1,751 ticket sales on Saturday in total."

" $857 - 486 = 371$ so there were 371 ticket sales for Starlight on Sunday."



Timetables

We use timetables to retrieve information. Our understanding of tables, including two-way tables, can help us to read and interpret them accurately.

Train Timetable					
Blackpool	05:55	07:08	10:48	14:46	16:11
Kirkham	06:10	07:25	11:05	15:03	16:27
Preston	06:27	07:38	11:19	15:21	16:41
Nuneaton	07:50	09:26	12:52	16:50	18:29
Milton Keynes	08:26	10:09	13:22	-	-
London	09:03	10:45	13:59	18:00	19:36

How long does it take to get from Blackpool to Nuneaton on the 10:48 train?

2 hours and 4 minutes

If the 07:08 train is running 7 minutes late, what time will it arrive in Milton Keynes?

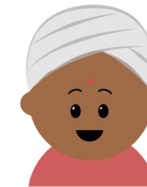
10:16

If you have to travel from Kirkham to London arriving by 19:00, which train would you get?

You would need to get the 15:03 train.

Representations of Data

Now that we are familiar with a range of ways to present data, we need to make decisions about which methods are the most appropriate for different contexts and why.



"I have collected data on the number of house points each class has received."

"This is discrete data so you should present it in a bar chart or pictogram."



"I have recorded the growth of my sunflower over the last 6 weeks."

"This is continuous data so you should present it in a line graph."

