



STATISTICS

KNOWLEDGE ORGANISER



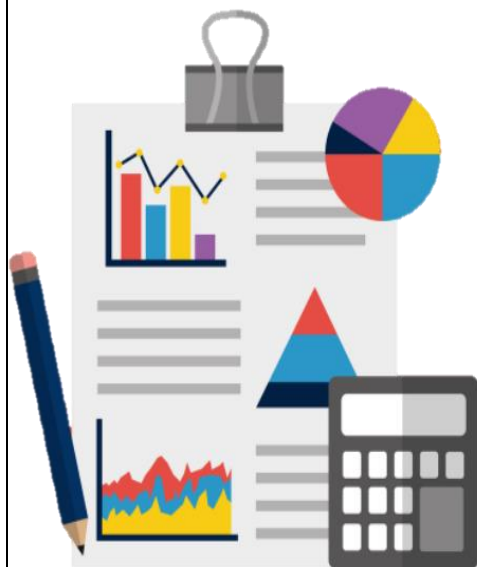
Overview

Statistics we learn to:

- Read and interpret line graphs
- Draw line graphs
- Use line graphs to solve problems
- Read/ interpret tables
- Two way tables
- Timetables

This learning is important because...

...it helps us to read and understand information. We can make use of information to answer important questions. It also helps us to think critically to solve problems.

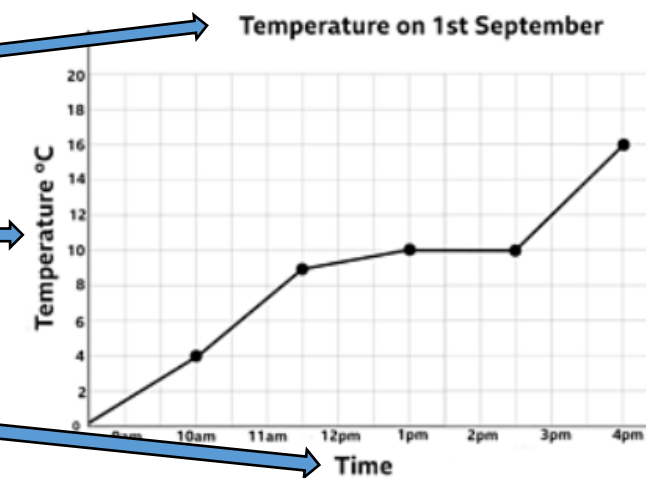


Line Graphs

Line graphs use a line to connect individual data points.

Line graphs are particularly useful for comparing and showing data change over time.

- The title of the line graph shows us what information is being presented.
- The y-axis runs up and down. In this line graph, the y-axis shows us the temperature in °C. Every 2°C are labelled.
- The x-axis runs across. In this line graph, the x-axis shows us the time. Every hour is labelled.



To find the temperature at 11.30am, we follow the x-axis across to 11.30am (the point in between 11am and 12pm). When we reach the line, we scan across to the y-axis to find the temperature. The temperature was 9°C at 11.30am (half-way in between 9°C and 10°C).

Tables

Reading and Understanding Tables

- In order to understand the data in tables, we need to read the title and headings of the table carefully.
- When looking at a piece of information, we need to ensure that we carefully read the headings that it falls under. E.g. for someone who is under 18, looking for a standard season ticket in a gold seating zone, they would need to look for the highlighted box.

Football Club Season Ticket Prices

	TICKET TYPE	EARLY BIRD	STANDARD
PLATINUM SEATING ZONES	ADULT	£410	£431
	65+	£310	£326
	YOUTH & 75+	£210	£221
	U18	£165	£173
GOLD SEATING ZONES	U12	£99	£104
	ADULT	£385	£404
	65+	£285	£299
	YOUTH & 75+	£195	£205
	U18	£140	£147
	U12	£75	£79

Completing Tables

- We can complete tables using given information.
- e.g. To find how many Year 9s voted for basketball, subtract football from Year 9 total.
- Once Year 9 basketball and Year 10 football have been inputted, we can find the totals by adding information together.

Year 9 and Year 10 Favourite Sports

	Football	Basketball	Total
Year 9	45		102
Year 10		32	101
Total			203

Timetables

- Timetables are tables that show when particular activities or events will happen.
- Timetables are often used to show the departure and arrival times of trains, buses and planes.

The different buses

	Bus A	Bus B	Bus C	Bus D
Market	08:00	10:20	12:20	16:55
Cinema	08:10	10:32	12:26	17:10
Hospital	08:25	10:48	12:42	17:33
School	08:47	11:10	13:11	18:01

The bus stops

-The bus timetable on the left shows the time at which the different buses depart from the bus stops.

-We need to look at both headings to make sure we catch the correct bus.

-E.g. if we want to catch Bus C from the hospital, we need to look at the different buses and the bus stops headings. This bus departs at 12.42.

Key Vocabulary

Interpret Timetable Value Predict Table Continuous Discrete X Axis Y Axis Scale Survey Tally Represent