Year 5 statistics

statistics		Working Towards	Within	Expected	Above
⌁	Solve comparison, sum and difference problems using information presented in a line graph				
	Complete, read and interpret information in tables, including timetables				

Highlights: _____

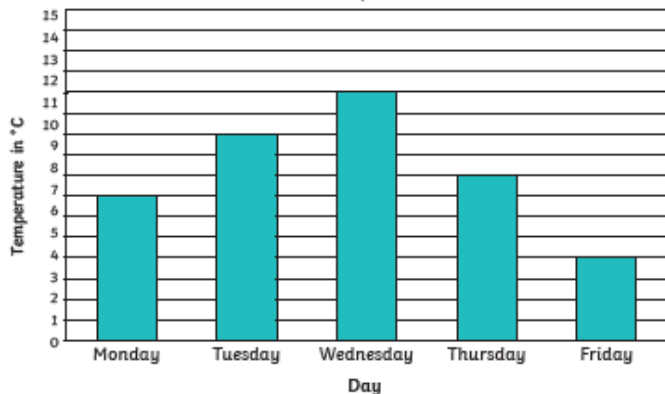_____

Glossary

vocabulary	word class	definition
category	noun	a class or division of people or things regarded as having particular shared characteristics
quantity	noun	the amount or number of a material
comparing	verb	estimate, measure, or note the similarity or dissimilarity between
interpret	verb	explain the meaning of
discrete	adjective	individually separate and distinct
continuous	adjective	of which the graph is a smooth unbroken curve

Time Graph
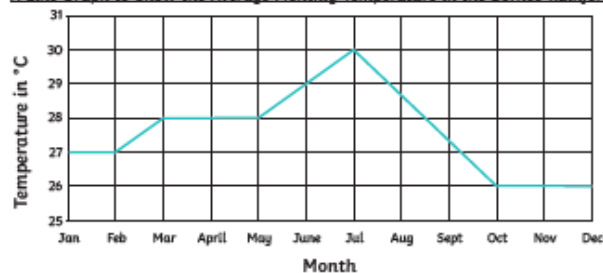
Time graphs show the changing of data over time.

Here is a bar chart which shows the change in temperature over five days.

Here is a line graph which shows the change in temperature over twelve months.

A Bar Chart to Show the Temperature at Lunchtimes

A Line Graph to Show the Average Monthly Temperature in the Borneo Rainforest

Tally marks look like this:
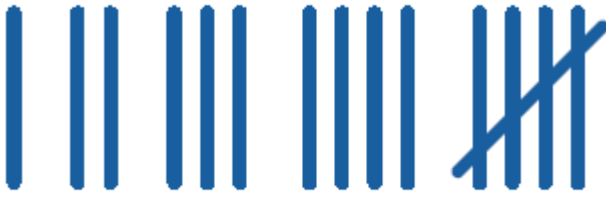
The fifth mark goes across diagonally, like a gate.

Pictograms use pictures or symbols to represent data. Each picture or symbol can represent one item or more than one. The key shows what each symbol represents.
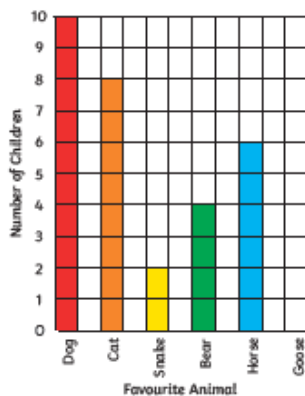
Bar Chart

A bar chart is used to clearly display results and information.

Types of items are shown on the x-axis, which is horizontal.

The number of items are shown on the y-axis, which is vertical.

One block represents one item. It is quicker to compare results using a block diagram than a table or tally chart.

A block diagram represents data using blocks. One block represents one item.

In this block diagram, the **y-axis**, which is vertical, shows the number of items.
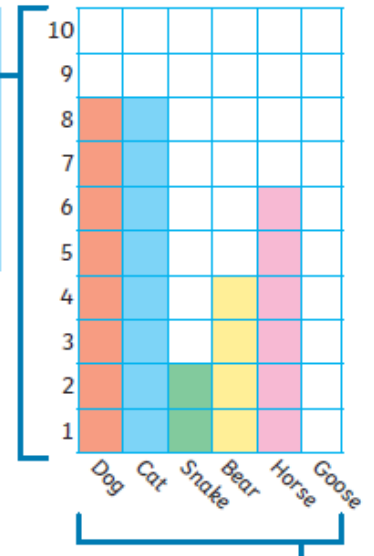
In this block diagram, the **x-axis**, which is horizontal, shows the types of items.

The blocks can go vertically or horizontally.

Caroll Diagram

A Carroll diagram is a table used for sorting objects based on whether they do or do not meet two given criteria.

Carroll diagrams were invented by Lewis Carroll, the author of 'Alice in Wonderand'.

	Red	Not Red
Quadrilateral		
Not a Quadrilateral		

Table

A table is used to record information and collect results.

The information can then be used to make pictograms or block diagrams to display results clearly.

A table needs to have headings to show what you are measuring or recording.

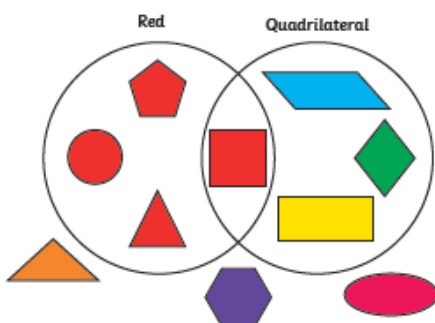| Favourite Animal	Number of Children
Dog	10
Cat	8
Snake	2
Bear	4
Horse	6
Goose	0

Venn Diagram

A Venn diagram is a diagram used to sort objects based on different criteria.

A Venn diagram is made up of two or more overlapping circles.

Objects placed in the section where the circles cross over meet both criteria.

Objects outside of the circles don't meet either set of criteria.

Line Graph Comparison, Sum and Difference Problems

A line Graph to Show the Temperature of the Classroom
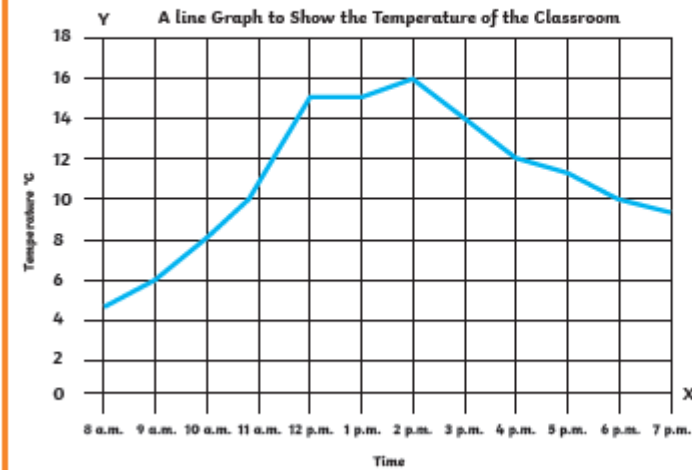
Compare: Look at two or more points on the graph and identify similarities or differences.

Sum: Finding the total of two or more points.

Difference: Finding the numerical difference between two points.

Completing Tables

Here is a table showing the favourite drink flavours of some children.

	Boys	Girls	Total
Orange	8		18
Blackcurrant		6	
Total	15		

To find how many boys voted for blackcurrant, look at the total number of boys who voted and subtract the number of votes for orange.

To find how many girls voted for orange, look at the total number of votes for orange and subtract the number of votes from boys.

To find the total number of votes for blackcurrant, the total number of girls or the total number of voters, simply add up the values from the appropriate row or column.

Future Learning

Year 6
⬤ Interpret and construct pie charts and line graphs and use these to solve problems
⬤ Calculate and interpret the mean as an average