

Year 4 – Maths – Statistics

Key vocabulary

bar chart

pictogram

frequency table

tally chart

discrete data

continuous data

time graph

sum

difference

comparison

interpret

Links to other learning

Year 3 - Interpret and present data using bar charts, pictograms and tables; Solve one-step and two-step questions [for example 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables.

Year 5 - Solve comparison, sum and difference problems using information presented in a line graph; Complete, read and interpret information in tables, including timetables.

Key questions

What is the difference between discrete and continuous data? Can you think of an example when you'd use each type?
Can you use data you have collected and present it in a way you see fit for the context of the data?

Discrete and Continuous Data

Data that is counted in whole numbers is discrete. In **discrete data**, values between whole numbers cannot be counted.

Data that is measured and therefore can take on infinite values is continuous. In **continuous data**, values between whole numbers can be counted.

Frequency Tables

Tally marks are used to help count things. Each vertical line represents one unit. The fifth tally mark goes down across the first four to make it easier to count.

The frequency column is completed after all the data has been collected.

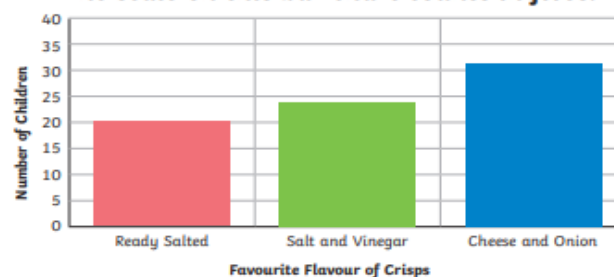
Eye Colour	Tally	Frequency
brown	###	6
blue	###	8
green		3
grey		4
hazel	###	5

Bar Charts

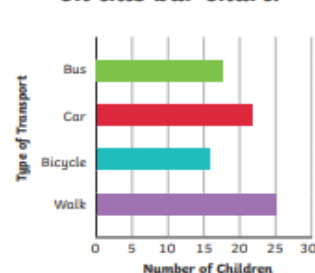
A bar chart has a horizontal axis and a vertical axis. Bars are used to show the data of each category. There must be a gap between each bar.

The scale of the bar chart is based on the range of data.

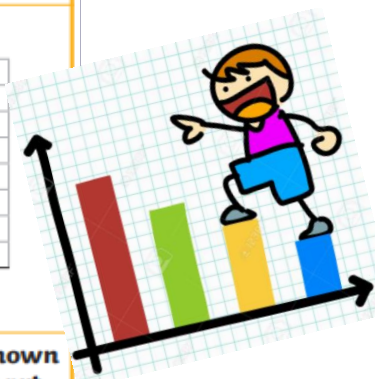
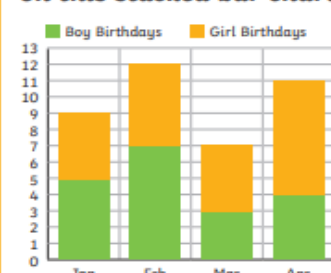
The scale on this bar chart counts in fives.



The bars are horizontal on this bar chart.



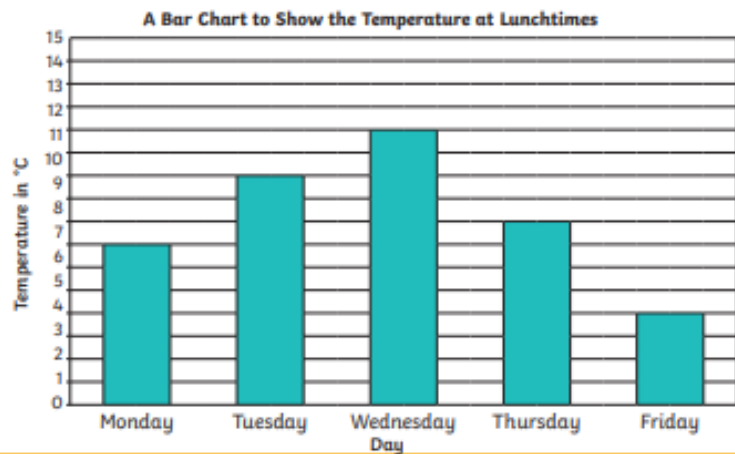
Two sets of data are shown on this stacked bar chart.



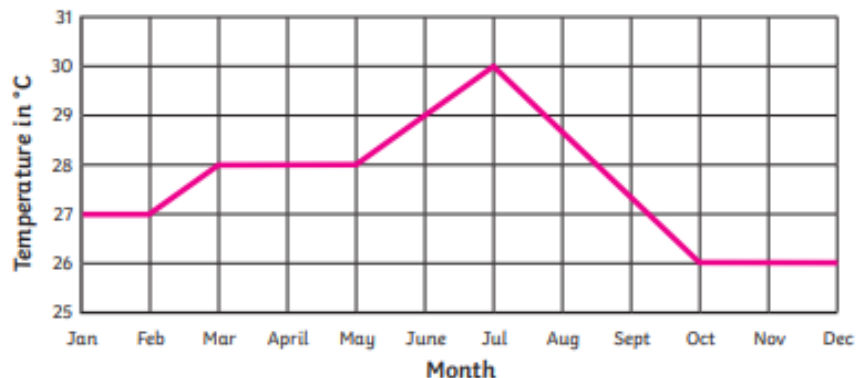
Time graphs



Time graphs show how data changes over time.



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



Pictograms

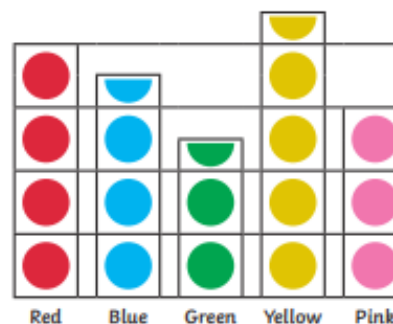


Pictograms use symbols or pictures to represent data.

This pictogram uses one symbol to represent two children.

Using this key, we can see that seven children prefer the colour blue.

Class 10's Favourite Colours



○ = 2 Children

Class 10's Pets

This pictogram uses one picture to represent four children. Using this key, we can see that six children have a pet fish.

■ = 4 Children

