

Year 6

Statistics

Statistics involves the collection, analysis, interpretation, presentation and organisation of data. Scientists, journalists and researchers are just some of the jobs that use statistics.

Builds from Year 5:

Interpreting line graphs and timetables.

This year:

Reading and interpreting line graphs.
Calculating the mean average.
Interpreting pie charts.

Leads to Key Stage 3:

Describe simple mathematical relationships between 2 variables.
Find the mean, mode, median.

Interpreting Data

Information can be shown in tables, charts or graphs.

Interpreting data means understanding or working out what is being shown by a table, graph or chart and being able to answer questions about that information.

Discrete data is data that can be counted and have a limited number of values. For example, days of the week.

Continuous data is data that can have any value.

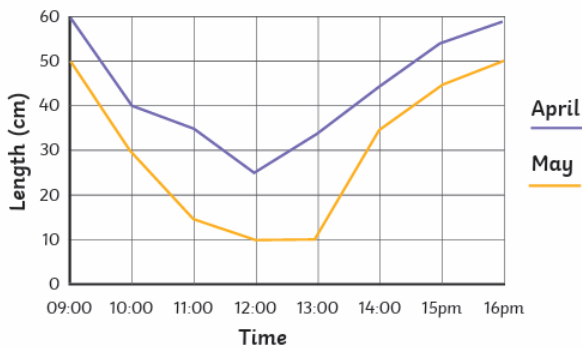
Height, weight, temperature and length are all examples of continuous data.

Line Graphs

Line graphs are used to show changes to a measurement over time.

Data shown in a line graph is **continuous**.

A line graph to show the length of shadows over time



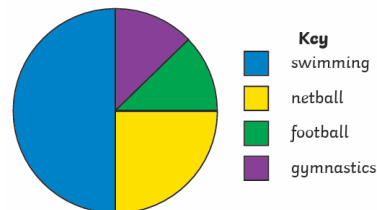
Pie Charts

Pie charts represent **discrete data**.

A circle is divided into segments, where each segment represents a data category.

The size of each segment matches its proportion of the total amount.

A pie chart to show children's favourite sports



24 children were asked in total.
Swimming = $\frac{1}{2}$ so $\frac{1}{2}$ of 24 = 12 children
Netball = $\frac{1}{4}$ so $\frac{1}{4}$ of 24 = 6 children
Football = $\frac{1}{8}$ so $\frac{1}{8}$ of 24 = 3 children
Gymnastics = $\frac{1}{8}$ so $\frac{1}{8}$ of 24 = 3 children

Mean Average

The mean is the average (middle value) of a set of data.

To find the mean average, **add** up all the values to find the total. **Divide** the total by the number of values that you added together. This will give you the mean.

12	15	10	8	15
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$$12 + 15 + 10 + 8 + 15 = 60$$

$$60 \div 5 = 12$$

The mean of this data is 12.

Key Vocabulary

pie chart line graph discrete data continuous data sum difference comparison interpret mean average