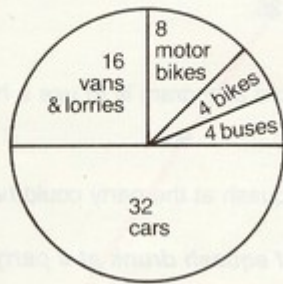


graphs



A graph is a special kind of chart or diagram. It shows a table of information clearly without using a lot of words or lists of figures. A simple way of doing this is to use a **pie chart**.

Pie chart

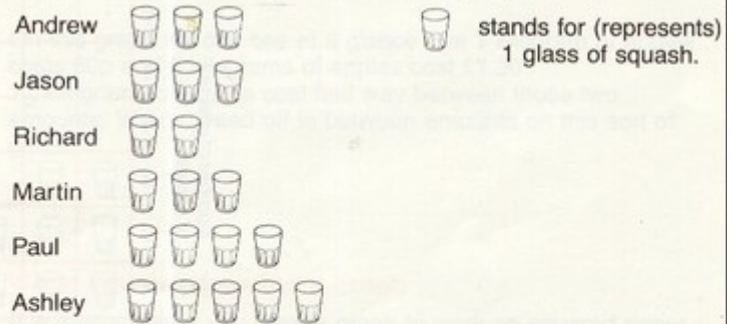
A pie chart looks like a pie marked off into slices.

Vehicles passing school between 10 a.m. and 11 a.m.

Pictogram

Look at this example:

Glasses of squash drunk at a party

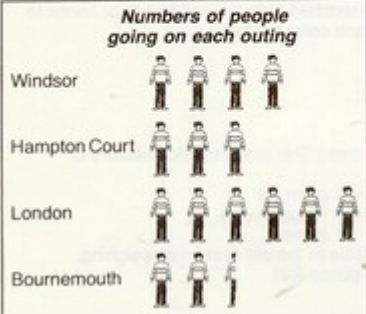


This can be called a **picture graph**, a **pictograph** or **pictogram**. Most people seem to call it a pictogram. The information is shown by a series of little pictures.

...ing

If you are drawing a pictogram make sure the title tells people what it is about. Choose a very simple little picture or symbol because you will have to draw a lot of them and they all have to be the same size and shape. Make sure all your symbols are above one another and in neat rows so that everyone can see your information at a glance. Always say what one symbol stands for.

If you are dealing with large numbers you can make one symbol stand for a lot.
Look at the next example:



40 people had arranged an outing to Windsor, 30 were going to Hampton Court, 60 were going to London and 25 were going to Bournemouth.

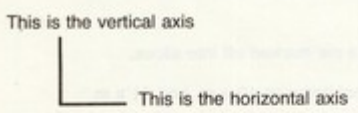
represents (stands for) 10 people.

We wrote the place names down first before we started drawing – otherwise it would have been hard to get the symbols above each other.

stood for 10 people. stood for 20 people.

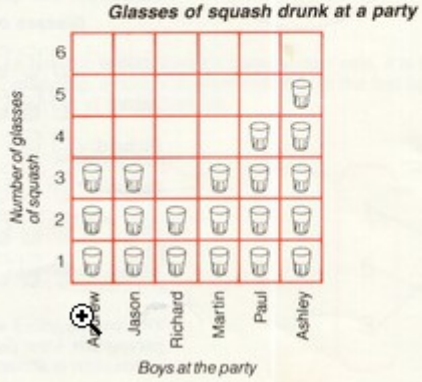
We needed to show 25 for Bournemouth. 5 is half of 10 so we had to draw half a symbol to stand for 5.

stood for 25.



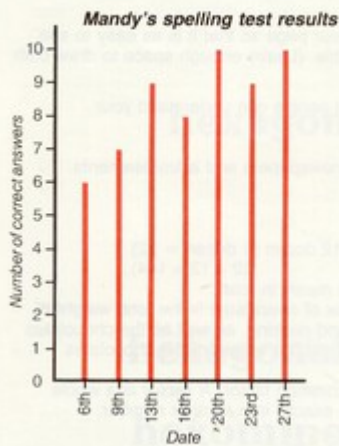
Another way of drawing a pictogram is to use a horizontal and a vertical axis.

The pictogram about squash at the party could have been drawn like this:



A bar chart

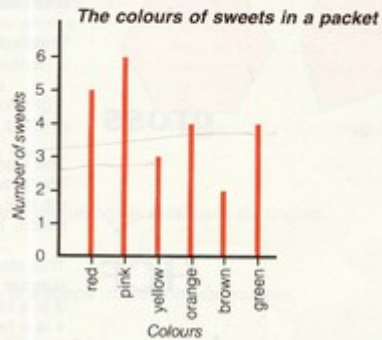
This is a block graph or column graph where the information is shown in rows or bars. (See **bar charts** for more details.)



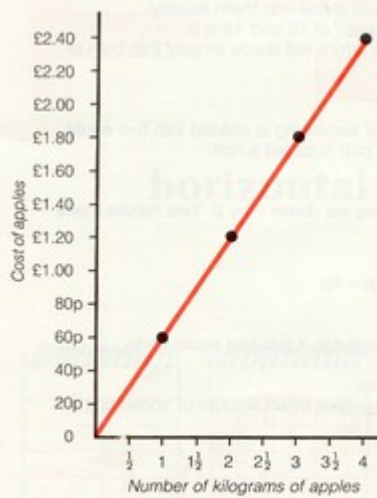
Line graph

We can show information by drawing lines instead of bars or blocks.

This is sometimes called a stick graph.



Cost of apples (per kilogram)



Sometimes only the points which would be at the top of each line are marked in or 'plotted'.

If these points are joined together we get a straight line. It is called a straight-line graph. Some graphs have curved lines. Some go up and down.

On this graph we can see at a glance that 1 kilogram of apples costs 60p and 2 kilograms of apples cost £1.20. $1\frac{1}{2}$ kilograms of apples cost half way between those two amounts. We can read off in between amounts on this sort of graph.

When you are drawing a graph

It is easiest when you draw a graph to work on squared paper. Your paper may not be big enough for you to use one square for each thing you are counting. You may have to let each square stand for two or more. This is called using a smaller **scale**.

Remember

- 1 Use a sharp pencil.
- 2 Give a heading or title to tell people what your graph is about.
- 3 Fit your graph on to your page so that it is as easy to see and understand as possible. (Leave enough space to draw both axes.)
- 4 Label the axes so that people can understand your information.

Watch out for graphs in newspapers and advertisements.



