



# DRAWING GRAPHS 1

In Science we often need to draw graphs or charts. The three types we draw most often are:

Type of graph/chart	When we do it
Bar charts	When one of the variables is not a number (e.g. colour)
Best fit graphs	When we plot points and draw a line of best fit that shows the pattern of the points
Scatter graphs	When we plot points but there is no clear pattern so we do not draw a line of best fit

Here is some guidance on drawing best fit and scatter graphs.

- 1) Make sure you know what goes on the horizontal (x) axis and what goes on the vertical (y) axis. The input / independent variable goes on the horizontal axis.
- 2) Work out a scale for each axis. The scale must use more than half the axis. Find the biggest value to go on the scale and then choose a scale to fit. **Each square must be worth the same value.** It is best to do this in pencil.
- 3) Label each axis with the name and units. Do this in pen.
- 4) Plot the points using X's (best in pencil).
- 5) If there is a clear pattern, draw a single best fit line. This can be curved or straight. It must go through or as close to the points as possible. There should be a similar number of points on each side of the line. Draw the line in pencil (with a ruler if you think it is a straight line).

## Practice at drawing best fit lines

Draw best fit lines on the graphs below.

