# 6. Using graphs

## What this is about

This page shows how you can use a computer to look at your data. You sort a list, work out an average and draw a chart.
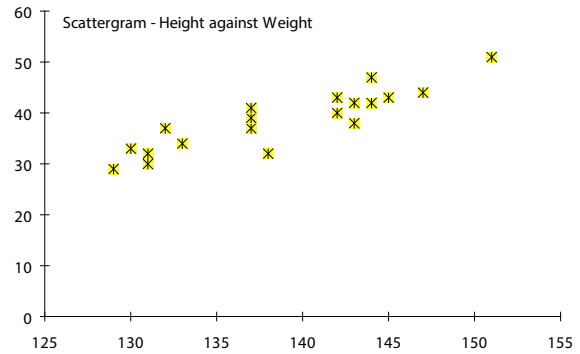
## Showing how we vary

We collected some information about children: their heights, weights and shoe sizes. We worked out the average weight of a child and then set about finding how everyone's weights varied by drawing a bar chart:

However, this was not very useful. We cannot easily see how many are above or below the average weight. We therefore decided to sort the class in order of weight and draw the bar chart again:

How many children are above the average weight?
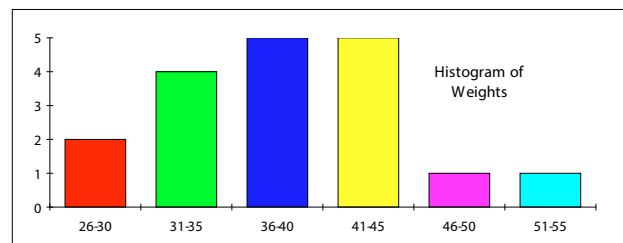
## Looking for patterns

You can look for patterns by drawing a scattergraph. We wondered if there was a pattern between height and weight so we made a scattergraph of height against weight:



Scattergram - Height against Weight

If you can see a trend in the points you may have found a pattern. What does the chart above tell you?

## Showing the most common results

We wanted to find the most common weights in the class so we drew a histogram. This is a type of bar chart where all the data is arranged in groups.



Histogram of Weights

What are the most common weight groups in the class?

## Using your own database

Use your database to find answers to the following:

How many children are above the average height? (Find the average and sort the list. Draw a bar chart)

Do taller children wear bigger shoes? (Draw a scattergraph of shoe size against height).

What are the most common heights in the class? (Draw a histogram of the children's heights).