Averages, quartiles and spread using Excel:

Mean

You can use
=average(*highlight from the first cell to the last cell***)** or use
=average(*first cell number***:***last cell number***)** to give the mean of a set of numbers.

You need to press = before you write average, because it is a formula (or rule).

The mean gives you a good idea of a representative number, to stand for the whole set of data.

Median

You can use **= median(***highlight from the first cell to the last cell***)**
to give you the median of a set of numbers.

Like the mean, the median gives you a good idea about a representative number. It is the middle number when all the numbers are written in order.

Quartiles

Quartiles separate the data into four regions. We can find the lowest value, the 1st quartile, the 2nd quartile (the median), the 3rd quartile and the highest value. (These are often plotted on a box and whisker diagram.)

To work out the quartiles in Excel, use:
= quartile(*highlight the cells you want***, 0)** gives the lowest value
= quartile(*highlight the cells you want***, 1)** gives the first quartile
etc.

The range and interquartile range tell you how spread out the data is. The interquartile range (IQR) is the 3rd quartile – 1st quartile.

Spread

A more sophisticated measure of spread is the standard deviation, which tells you how spread out the numbers are from the mean.

You can use **=stdevp(***highlight from the first cell to the last cell***)**
to give you the standard deviation of a set of numbers.