As outcomes, Year 8 pupils should, for example:	As outcomes, Year 9 pupils should, for example:

Select tables, graphs and charts to support findings.
For example, choose a bar chart to represent second-hand car prices, because it conveys the progression in value (unlike the pie chart) and has a stronger visual image than the line graph, where the joining of points to show trends could mislead.
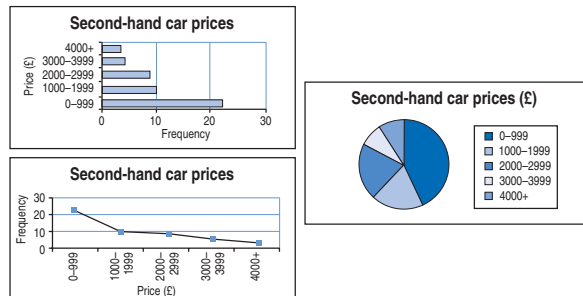
Identify misleading graphs and statistics, such as:
- incomplete diagrams;
- inappropriate use of scale or breaking the scale on the axes to magnify differences;
- treating discrete data as continuous data, and vice versa, or joining up points with lines for a discrete distribution;
- general conclusions from very small samples, e.g. '9 out of 10 cats prefer…';
- misinterpreting lines of best fit on scatter diagrams.

Recognise that graphs produced by popular **ICT packages** often suffer from some of these faults.

Examine results critically, and justify choice of statistical representation in written presentations, recognising the limitations of any assumptions and their effect on the conclusions drawn. For example:

- Study of populations of the UK and Brazil
  Conclude that the 'bottom-heavy' shape of the Brazilian population distribution could be due to a number of factors. Observe that a significant difference between the mean and median gives a measure of the skew of the distribution.

  Note that the 'bottom-heavy' effect could be due to a rising birth rate (giving an increasing number of younger people) or to a significant death rate at all ages (reducing the number of people still alive at each higher age group). Use the high population growth rate to indicate the former, but the high infant mortality and low life expectancy to support the latter.

  Use the roughly uniform population distribution, and high life expectancy, of the UK to argue that both mortality figures and the birth rate are low.

- Study of distribution of grass and non-grass plants
  Having examined the effect of moisture content of soil on the distribution of grass, recognise that other factors may be significant.