

What is qualitative data?	What is quantitative data?
Non-numerical data which describes qualities, rather than measurements (e.g. texture, colour, taste)	Data which is counted or measured, giving a numerical value (e.g. number of children, volume of a container)
What is discrete data?	What is continuous data?
Data which can be counted or takes specific values (e.g. number of rooms in a house, shoe size)	Data which can be measured on a scale (e.g. temperature, height, time)
What is raw data?	What is primary data?
Information which has not been ordered or processed in any way	Data collected by or for the person who will be using it
What is secondary data?	Give an advantage of primary data.
Data from another source, perhaps for a different reason (i.e. collected by somebody other than yourself)	It is trustworthy. You know how and by whom it was collected, and how recent it is.

<p>Give two advantages of secondary data.</p>	<p>Give two disadvantages of secondary data.</p>
<p>Cheap Easy to obtain Could give useful starting point for further experiment or study</p>	<p>Little knowledge of how or by whom it was collected It could be out of date</p>
<p>What is an explanatory or independent variable?</p>	<p>What is a response or dependent variable?</p>
<p>The variable controlled in an experiment (e.g. the amount of water given to a germinating seed)</p>	<p>A variable which results from an experiment (e.g. the length of a root from a germinating seed when watered)</p>
<p>What are upper and lower bounds?</p>	<p>What are the upper and lower bounds of £120 to the nearest £?</p>
<p>Upper bound = largest possible value Lower bound = lowest possible value</p>	<p>Upper bound = £120.50 Lower bound = £119.50</p>
<p>What are the upper and lower bounds of 45km to the nearest 5km?</p>	<p>During a survey, what is the population?</p>
<p>Upper bound = 47.5km Lower bound = 42.5km</p>	<p>Everything or everybody taking part in the survey</p>

<p>What is a pilot survey?</p>	<p>Why are tally marks useful in recording data?</p>
<p>A small survey carried out to help identify problems or limits before doing a full survey</p>	<p>Quicker to write than a word or number</p> <p>Grouping into fives makes them easier to process than      </p>
<p>Give two methods of collecting data for an opinion poll.</p>	<p>Explain the reason for a control group in a statistical experiment.</p>
<p>Personal interviews Telephone surveys Postal surveys Shoppers surveys</p>	<p>Gives a standard for comparison of changes in the experimental group (e.g. a placebo group in medical trials)</p>
<p>What is the difference between a census and a sample?</p>	<p>What is the difference between a population and a sample?</p>
<p>A census obtains information from the whole population. A sample obtains information from part of the population.</p>	<p>A population is the whole group you wish to study. A sample is a smaller representation of the whole population.</p>
<p>What is a sampling frame?</p>	<p>Describe a simple random sampling method.</p>
<p>All items in the population from which a sample can be drawn</p>	<p>Any method where each member of the population has an equal chance of being chosen:</p> <p>Draw names from a hat</p> <p>Assign each item a number and use a random number generator</p>

<p>What is the advantage of stratified sampling?</p>	<p>Describe quota sampling.</p>
<p>Ensures proportionate representation of different groups within the population</p>	<p>A sample is chosen based on given specifications or instructions (e.g. ask 100 females, or ask 50 people under the age of 18)</p>
<p>What is systematic sampling?</p>	<p>What is cluster sampling?</p>
<p>All items in the population are listed in a given order, then every <math>n^{\text{th}}</math> item from a random start point is chosen (e.g. every third person in a class register)</p>	<p>The population is divided into smaller groups, then one or more groups is chosen (e.g. students chosen from three UK counties)</p>
<p>What is a standard population?</p>	<p>What conditions need to be true of the population when using capture-recapture sampling?</p>
<p>1000 people who represent the whole population, found by stratified sampling</p>	<p>Constant population when both samples are taken  The first marked sample must have mixed well with the whole population</p>
<p>To see if pupils enjoy PE lessons, the netball and football teams are surveyed. Is this a good sample?</p>	<p>To find the average size of fish in the Lake District, 100 fish are sampled from Windermere. Is this biased?</p>
<p>No – members of the teams are likely to be those who all enjoy PE</p>	<p>Yes – the wrong population has been sampled.  Fish would have to be taken from different lakes to sample to whole Lake District.</p>