

## HIGHER GCSE UNIT SUMMARY: UNIT 14: Statistics and sampling, cumulative frequency and histograms

### 14a) Collecting data

Unit Description	Taught	Revision Priority
Specify the problem and plan: decide what data to collect and what analysis is needed; understand primary and secondary data sources; consider fairness;		
Understand what is meant by a sample and a population;		
Understand how different sample sizes may affect the reliability of conclusions drawn;		
Identify possible sources of bias and plan to minimise it;		
Write questions to eliminate bias, and understand how the timing and location of a survey can ensure a sample is representative;		

### 14b) Cumulative frequency, box plots and histograms

Unit Description	Taught	Revision Priority
Use statistics found in all graphs/charts in this unit to describe a population;		
Know the appropriate uses of cumulative frequency diagrams;		
Construct and interpret cumulative frequency tables, cumulative frequency graphs/diagrams and from the graph: estimate frequency greater/less than a given value; find the median and quartile values and interquartile range;		
Compare the mean and range of two distributions, or median and interquartile range, as appropriate;		
Interpret box plots to find median, quartiles, range and interquartile range and draw conclusions;		
Produce box plots from raw data and when given quartiles, median and identify any outliers;		
Know the appropriate uses of histograms;		
Construct and interpret histograms from class intervals with unequal width;		
Use and understand frequency density;		
From histograms: complete a grouped frequency table; understand and define frequency density;		
Estimate the mean and median from a histogram with unequal class widths or any other information from a histogram, such as the number of people in a given interval.		