



Year 12 Statistics Curriculum Summary



– Y12 Statistics

When?	Topic	Knowledge	Unit Assessment
HALF TERM 1	Data collection	<ul style="list-style-type: none"> • Understand ‘population’, ‘sample’ and census, and comment on the advantages and disadvantages of each • Understand the advantages and disadvantages of simple random sampling, systematic sampling, stratified sampling, quota sampling and opportunity sampling • Define qualitative, discrete and continuous data and understand grouped data • Understand the large data set and how to collect data from it, identify types of data and calculate simple statistics 	<ul style="list-style-type: none"> • Population • Sample • Census • Random sampling • Systematic sampling • Stratified sampling • Quota sampling • Opportunity sampling • Qualitative, discrete, continuous, grouped data
HALF TERM 2	Measures of location and spread	<ul style="list-style-type: none"> • Calculate measures of central tendency such as the mean, median and mode • Calculate measures of location such as percentiles and deciles • Calculate measures of spread such as range, interquartile range and interpercentile range • Calculate variance and standard variation 	<ul style="list-style-type: none"> • Mean, median, mode • Percentiles, deciles • Interquartile and interpercentile range • Variance • Standard deviation
HALF TERM 3	Representations of data	<ul style="list-style-type: none"> • Identify outliers in data sets • Draw and interpret box plots • Draw and interpret cumulative frequency diagrams • Draw and interpret histograms • Compare two data sets 	<ul style="list-style-type: none"> • Outliers • Box plots • Cumulative frequency histograms



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HALF TERM 4	Correlation	<ul style="list-style-type: none"> • Draw and interpret scatter diagrams for bivariate data • Interpret correlation and understand that it does not imply causation • Interpret the coefficients of a regression line equation for bivariate data • Understand when you can use a regression line to make predictions 	<ul style="list-style-type: none"> • Scatter diagrams • Correlation • Regression line
HALF TERM 5	Probability	<ul style="list-style-type: none"> • Calculate probabilities for single events • Draw and interpret Venn diagrams • Understand mutually exclusive and independent events, and determine whether two events are independent • Use standard tree diagrams 	<ul style="list-style-type: none"> • Probability • Venn diagrams • Mutually exclusive events • Independent events • Std tree diagrams
HALF TERM 6	Statistical distributions	<ul style="list-style-type: none"> • Understand and use simple discrete probability distributions including the discrete uniform distribution • Understand the binomial distribution as a model and comment on appropriateness • Calculate individual probabilities for the binomial distribution • Calculate cumulative probabilities for the binomial distribution 	<ul style="list-style-type: none"> • Probability distributions • Discrete uniform distributions • binomial distribution • Calculate individual probabilities for the binomial distribution • Calculate cumulative probabilities for the binomial distribution