



SCHEME OF WORK		SUBJECT: STATISTICS HIGHER TIER			YEAR: 11	
	Autumn Term 1: Time series	Autumn term 2: Probability 1	Spring term 1: Probability 2	Spring term 2: Social statistics & Distributions	Summer term 1: Revision	Summer term 2:
Key concepts	<ul style="list-style-type: none"> Scatter diagrams* Lines of best fit* Correlation* Spearman's rank correlation coefficient Moving averages 	<ul style="list-style-type: none"> Sample space diagrams* Independent events* Conditional probability* Two way tables* Venn diagrams* 	<ul style="list-style-type: none"> Tree diagrams* Relative frequency* Experimental and theoretical probabilities* Calculating risk 	<ul style="list-style-type: none"> Rates of change Index numbers Binomial distribution Normal distribution Estimating population size using Petersen capture-recapture method 	<ul style="list-style-type: none"> Quality assurance Control charts Estimating population parameters Reliability Revision 	
Themes	Identifying and interpreting trends in data.	Probabilities calculated from tables & diagrams	More probability	Social statistics and distributions	Revision	
Challenge	Line of best fit must go through the double mean point.	Using formulas for calculating probability of independent and conditional events.	Calculating and interpreting absolute and relative risk	Know the difference between crude rates of change and	Interpreting control charts by giving advice on actions to be taken.	



	<p>Calculating equation of line of best fit. Understand the terms 'interpolation' and 'Extrapolation' Interpreting results of Spearman's rank correlation coefficients. Using moving averages to make predictions and estimate mean seasonal variations</p>	<p>Identify notations, $P(A \cap B)$, on venn diagrams. Obtain conditional probability from venn diagrams.</p>		<p>standardised rates of change. Weighted index numbers. Calculate probabilities from a binomial distribution. Calculating standardised scores to compare normal samples.</p>		
Support	<p>Plotting axes correctly. Always using a line of best fit when estimating values. Know and apply the formula for Spearman's rank correlation coefficient. Plot time series graphs and calculate and plot moving averages</p>	<p>Listing outcomes using sample space diagrams. Use venn diagrams to represent data. Use venn diagrams to represent data.</p>	<p>Consolidate constructing tree diagrams, showing all outcomes and probabilities. Know that relative frequency is probability calculated from an experiment</p>	<p>Calculate rates of change using the formula. Understand the concept of index numbers and know real life examples. Can state properties of binomial distribution. Can state the properties of a normal distribution.</p>	<p>Construct control charts. Know that the sample mean is an unbiased estimator for its population mean. Understand that the larger a sample the more reliable its estimates.</p>	



				Know and apply method of Petersen capture-recapture method.		
Literacy focus	Learn meaning and spelling of key words	Learn meaning and spelling of key words	Learn meaning and spelling of key words	Learn meaning and spelling of key words	Learn meaning and spelling of key words	
Numeracy focus						
Cross-curricular links	* Also included in maths GCSE	* Also included in maths GCSE	* Also included in maths GCSE	* Also included in maths GCSE	* Also included in maths GCSE	
SMSC & MBV						
ASSESSMENTS	Assessment 3 ~ October/November	Year 11 mocks	GCSE Examination	GCSE Examination	GCSE Examination	
Out of school learning						



Lesson	Key concepts	Learning outcomes	Differentiation	Resource
1				
2				
3				
4				
5				
6				
7				

OPTIONAL PAGE