

<b>GCSE Statistics</b>	<b>Curriculum Intent:</b> GCSE Statistics is offered to students as part of the options process. During Years 10 and 11 the students complete two qualifications. The first is GCSE Statistics taken in Year 10; this takes the statistical study completed as part of the KS3 curriculum and GCSE Maths curriculum, then develops and extends this knowledge and understanding. New skills and concepts are introduced and students look at applying this knowledge to real life situations. The second qualification is the Level 2 Further Mathematics award, examined at the end of Year 11. This takes the number, algebra and geometry elements of GCSE Maths to the next level and provides a good starting point for A level Maths. More complex mathematical concepts including calculus and matrices are introduced.					
	<b>Term One</b>	<b>Term Two</b>	<b>Term Three</b>	<b>Term Four</b>	<b>Term Five</b>	<b>Term Six</b>
<b>Knowledge</b>	<u><b>Planning Data Collection</b></u> <ul style="list-style-type: none"> <li>Types of data</li> <li>Simplifying and grouping data</li> <li>Sampling techniques</li> </ul> <u><b>Representing Data</b></u> <ul style="list-style-type: none"> <li>Stem &amp; leaf diagrams</li> <li>Population pyramids</li> <li>Choropleth maps</li> <li>Pie charts</li> <li>Comparative pie charts</li> </ul> <u><b>Analysing and Interpreting Data</b></u> <ul style="list-style-type: none"> <li>Averages from grouped data</li> <li>Measures of spread</li> </ul>	<u><b>Collecting Data</b></u> <ul style="list-style-type: none"> <li>Questionnaires</li> <li>Experiments</li> <li>Simulation</li> </ul> <u><b>Representing Data</b></u> <ul style="list-style-type: none"> <li>Cumulative Frequency Diagrams</li> <li>Box and whisker diagrams</li> <li>Histograms</li> <li>Misleading diagrams</li> </ul>	<u><b>Analysing and Interpreting Data</b></u> <ul style="list-style-type: none"> <li>Standard deviation</li> <li>Standard deviation from frequency tables</li> <li>Outliers</li> <li>Box and whisker diagrams including outliers</li> <li>Skewness of data</li> <li>Normal distribution</li> <li>Standardised scores</li> <li>Summary statistics</li> <li>Estimating population sizes</li> </ul>	<u><b>Representing Data</b></u> <ul style="list-style-type: none"> <li>Scatter diagrams</li> <li>Time Series Graphs</li> </ul> <u><b>Analysing and Interpreting Diagrams</b></u> <ul style="list-style-type: none"> <li>Interpreting scatter diagrams</li> <li>Spearman's Rank Correlation Coefficient &amp; interpretation</li> <li>Time Series</li> </ul>	<u><b>Probability</b></u> <ul style="list-style-type: none"> <li>Relative frequency</li> <li>Expected and actual frequencies</li> <li>Sample space diagrams</li> <li>Venn diagrams</li> <li>Two-way tables</li> <li>Tree diagrams</li> <li>Independent events</li> <li>Conditional probability</li> </ul>	Consolidation and preparation for GCSE examinations.
<b>Understanding</b>	Completion of exam questions and problem solving activities to develop application of knowledge and skills		Completion of exam questions and problem solving activities to develop application of knowledge and skills		Completion of exam questions and problem solving activities to develop application of knowledge and skills	
<b>Skills</b>	Use and apply standard technique	Reason, interpret and communicate mathematically	Solve problems within mathematics and in other contexts	Use and apply standard technique	Reason, interpret and communicate mathematically	Solve problems within mathematics and in other contexts
<b>Interleaving</b>	Regular consolidation of all prior teaching Reviewing skills for future learning		Regular consolidation of all prior teaching Reviewing skills for future learning		Regular consolidation of all prior teaching Reviewing skills for future learning	
<b>Assessment</b>	Regular 'low stakes' testing in class Formal assessment at end of Term One		Regular 'low stakes' testing in class Formal assessment during Term Three		Regular 'low stakes' testing in class End of Year Exams in June	