



Curriculum Map

Subject: Mathematical Studies

Year group: Year 12

This document maps the Year 12 Curriculum in Mathematical Studies.

| | Phase One <i>September – December</i> <i>(15 weeks)</i> | Phase Two <i>January – April</i> <i>(13 weeks)</i> | Phase Three <i>May- July</i> <i>(5 weeks)</i> |
|---|---|---|---|
| <p>Content</p> <p>Declarative Knowledge – ‘Know What’</p> | <p><i>INTENT: Students build on their GCSE Data Handling skills and learn new statistical techniques as well as applying their mathematical skills to the area of Personal Finance.</i></p> <p>Compulsory Content Analysis of Data Mathematics for Personal Finance</p> <p>Statistical Techniques (Optional Content) The Normal Distribution Probabilities and Estimation (including Confidence Levels)</p> | <p><i>INTENT: Students complete the scheme of work in both Statistical Techniques (optional content) and in the compulsory content. Students are introduced to preliminary materials from previous years and work with them to become familiar with techniques ahead of the release of the 2020/21 preliminary material in March.</i></p> <p>Compulsory Content Estimation (including Fermi estimation) Critical Analysis of Given Data and Models</p> <p>Statistical Techniques (Optional Content) Correlation and Regression</p> | <p><i>INTENT: Students complete a 3 week revision programme and sit the external exams.</i></p> <p>The three-week revision programme is focused on completion of past papers/exam question papers by topic including revision on the preliminary material.</p> |
| <p>Skills</p> <p>Procedural Knowledge – ‘Know How’</p> | <p>Review intensively the GCSE Data Handling and Probability Skills to be able to apply them confidently in new statistical methods and financial contexts.</p> <p>Learn to select appropriate knowledge and methodology to new number and statistical concepts and apply them in a range of modelling problems in different real-life contexts.</p> | <p>Learn to select appropriate knowledge and methodology to new number and statistical concepts and apply them in a range of modelling problems in different real-life contexts.</p> <p>Learn to apply statistical and numerical methods as well as applying critical analysis techniques to the preliminary material released for the 2021 exam.</p> | <p>Review topics to consolidate mathematical understanding and how to apply this knowledge appropriately in the context of the exam.</p> <p>Learn to apply statistical and numerical methods as well as applying critical analysis techniques to the preliminary material released for the 2021 exam.</p> |
| <p>Key Questions</p> | | | |



Curriculum Map

| | | | |
|--|--|--|--|
| <p>Assessment</p> | <p>Data and Percentages Assessment</p> <p>Normal Distribution and Personal Finance Assessment</p> | <p>3 mock examination assessments (2 papers each)</p> <p>Paper 1 Mock</p> <p>Statistical Techniques Paper 2 Mock</p> | <p>Level 3 Certificate External Exams</p> <p>Students sit two papers:</p> <p>Paper 1 (1 hr 30 mins)</p> <p>Statistical Techniques Paper 2 (1hr 30 mins)</p> |
| <p>Literacy/Numeracy/SMSC/Character</p> | <p>Applying mathematical concepts to real life scenarios and understanding why a particular method of analysing data is fit for purpose. Understanding 'critical analysis' in relation to functional calculations, data representation and interpretations. Justifying the most appropriate methods to use in various situations and stating assumptions made in use of estimation techniques.</p> <p>Aspiration, Resilience, Initiative, Confidence</p> | <p>Applying mathematical concepts to real life scenarios and understanding why a particular method of analysing data is fit for purpose. Understanding 'critical analysis' in relation to functional calculations, data representation and interpretations. Justifying the most appropriate methods to use in various situations and stating assumptions made in use of estimation techniques.</p> <p>Aspiration, Resilience, Initiative, Confidence</p> | <p>Applying mathematical concepts to real life scenarios and understanding why a particular method of analysing data is fit for purpose. Understanding 'critical analysis' in relation to functional calculations, data representation and interpretations. Justifying the most appropriate methods to use in various situations and stating assumptions made in use of estimation techniques.</p> <p>Aspiration, Resilience, Initiative, Confidence</p> |