Curriculum Map

Sandringham School
'Everybody can be Somebody'

Subject: Mathematical Studies **Year group: Year 12**

This document maps the Year 12 Curriculum in Mathematical Studies.

	Phase One ***September – December*** ***(15 weeks)***	**Phase Two** ***January – April*** ***(13 weeks)***	**Phase Three** ***May- July*** ***(5 weeks)***
Content ***Declarative Knowledge – 'Know What'***	***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.* **Compulsory Content** Analysis of Data Mathematics for Personal Finance **Statistical Techniques (Optional Content)** The Normal Distribution Probabilities and Estimation (including Confidence Levels)	***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 current year's preliminary material in March.* **Compulsory Content** Estimation (including Fermi estimation) Critical Analysis of Given Data and Models **Statistical Techniques (Optional Content)** Correlation and Regression	***INTENT:** Students complete an intensive revision programme and sit the external exams.* The intensive revision programme is focused on completion of past papers/exam question papers by topic including familiarisation with the preliminary material.
Skills ***Procedural Knowledge – 'Know How'***	Review intensively the GCSE Data Handling and Probability Skills to be able to apply them confidently in new statistical methods and financial contexts. Summer work will have been set for the underlying skills from GCSE, which are assessed in the baseline test. 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.	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. Learn to apply statistical and numerical methods as well as applying critical analysis techniques to the preliminary material released for the current year's exam.	Review topics to consolidate mathematical understanding and how to apply this knowledge appropriately in the context of the exam and the specific preliminary material. Learn to apply statistical and numerical methods as well as applying critical analysis techniques to the preliminary material released for the current year's exam.
Key Questions			

Assessment	Baseline Test based upon their Summer work (GCSE level) Data and Percentages Assessment Normal Distribution and Personal Finance Assessment	3 mock examination assessments (2 papers each) Paper 1 Mock Statistical Techniques Paper 2A Mock	**Level 3 Certificate External Exams** Students sit two papers: Paper 1 (1 hr 30 mins) Statistical Techniques Paper 2A (1hr 30 mins)
Literacy/Numeracy/ SMSC/Character	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. Aspiration, Resilience, Initiative, Confidence	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. Aspiration, Resilience, Initiative, Confidence	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. Aspiration, Resilience, Initiative, Confidence