Year 12 Core Maths

Module Title: Percentages, Data, Tax and National Insurance	Module Title: Estimation, Financial Problems, Graphs and Charts and Geometrical Measurements	Module Title: Geometrical Methods, Correlation and Regression
Learning Intent for this module: Students will become familiar with the use of multipliers in calculating percentages including for calculating compound interest and decay. Students will be introduced to the concepts of tax and national insurance and will calculate each separately before applying both to find net pay. Students will discover a range of sampling techniques as well as the advantages and disadvantages of each. Students will use calculator functions to calculate measures of location and spread.	Learning Intent for this module: Students will be introduced to the process of Fermi estimation and will look at a range of real-life context problems. They will be encouraged to think about assumptions they have made rather than simply their Mathematical calculations. Students will solve a range of problems in a financial context including interest rates. Students will work with a range of geometrical measurements and associated formulae.	Learning Intent for this Module: Students will improve and build upon their knowledge of geometrical methods with a particular focus on the efficient use of their calculators. Students will be confident in finding the equation of a straight line and will apply this to their work on correlation and regression. Students will be introduced to the correlation co-efficient and regression lines. They will become familiar with the use of their calculators to find associated values.
Key Content to be learned: *Teacher 1* • Percentage methods including multipliers and compound interest and decay • Tax and National Insurance *Teacher 2* • Data – types and collecting • Data – Sampling • Representing Data numerically	Key content to be learned: *Teacher 1* • Fermi Estimation • Financial Problems • Interest Rates *Teacher 2* • Representing Data graphically • Perimeter, circumference, area • Surface Area	Key Content to be learned: *Teacher 1* • Similarity • Pythagoras' Theorem • Compound Measures • Numerical Calculations *Teacher 2* • Equation of a straight line • Correlation and regression

Key tasks for this module:	Key tasks for this module:	Key tasks for this module:
• Key Task 1 – Estimation • Key Task 2 – Tax and National Insurance	• Key Task 1 – Percentages • Key Task 2 - Graphs and Charts	• Key Task 1 – Correlation and Regression • Key Task 2 – End of Year Exam

Year 13 Core Maths

Module Title: Critical Analysis, Repayments and Credit	Module Title: The Normal Distribution and Borrowing	Module Title: Revision and Exam Preparation
Learning Intent for this module: Students will use spreadsheets and become familiar with formulae used. Students will be introduced to APR and the associated formulae and will applying to financial problems. Students will be encouraged to analyse data and data reports critically.	Learning Intent for this module: Students will be introduced to the Normal distribution and the associated statistical tables. They will use these to calculate probabilities and will extend their knowledge to calculation confidence intervals. Students will look at a range of borrowing products and will focus in particular on student loans and mortgages.	Learning Intent for this Module: Students will now consolidate their learning cross the course. Particular revision will focus on the statistics element on the course as well as tax an national insurance and interest rates (AER/APR). Students will carefully work through the preliminary materials upon their release in order to prepare for their final examinations.
Key Content to be learned: *Teacher 1* • Spreadsheets • Probability and Estimation	Key content to be learned: *Teacher 1* • Normal distribution • Confidence Intervals	Key Content to be learned: *Teacher 1* • Normal distribution and Confidence Intervals Revision

• Repayments and Credit(APR) • VAT *Teacher 2* • Critical analysis • Graphical representation • Limits of Accuracy • Budgeting	*Teacher 2* • Currency Exchange • Mortgages • Student Loans	• Tax and National Insurance Revision • Preliminary Materials *Teacher 2* • AER Revision • APR Revision • Mortgages and Student Loans • Preliminary Materials
Key tasks for this module: • Key Task 1 – Repayments and Credit (APR) • Key Task 2 – Mock 1	Key tasks for this module: • Key Task 1 – Normal Distribution and confidence Intervals • Key Task 2 – Mock 2	Key tasks for this module: