Core Maths

Year 12



Overview

Core Maths (AQA)

Designed to advance learners' skills while developing knowledge, AQA's qualifications help learners either progress to higher education or go directly into employment. They are grounded in the quality and traditions of the British education system made relevant for today's UK and international learner.

	Half Term 1	Half Term 2	Assessment
Autumn Term	 Numerical calculations substituting numerical values into formulae, spreadsheets and financial expressions using conventional notation for priority of operations, including brackets, powers, roots and reciprocals applying and interpreting limits of accuracy, specifying simple error intervals due to truncation or rounding finding approximate solutions to problems in financial contexts Percentages interpreting percentages and percentage changes as a fraction or a decimal and interpreting these multiplicatively expressing one quantity as a percentages working with percentages over 100% Analysis of Data Collecting and sampling data Collecting and sampling data inferring properties of populations or distributions from a sample, whilst knowing the limitations of sampling 	 Representing data numerically calculating/identifying mean, median, mode, quartiles, percentiles, range, interquartile range, standard deviation interpreting these numerical measures and reaching conclusions based on these measures. Representing data diagrammatically constructing and interpreting diagrams for grouped discrete data and continuous data, knowing their appropriate use and reaching conclusions based on these diagrams Diagrams including histograms, cumulative frequency, box plots and stem and leaf 	

	Half Term 3	Half Term 4	Assessment
Spring Term	 Maths for personal finance Interest rates Simple and compound interest Savings and investment Annual equivalent rate (AER) 	 Graphical Representation Representing financial situations graphically Taxation Income tax, national insurance, VAT 	January assessment

Repayments and cost of credit	Solutions to financial problems	
Student loans and mortgages	 Effect of inflation 	
 Annual percentage rate (APR) 	Currency exchange including commissionBudgeting	

Spring Term

	Half Term 5	Half Term 6	Assessment
Summer Term	 Estimation The modelling cycle The modelling cycle representing a situation mathematically, making assumptions and simplifications selecting and using appropriate mathematical techniques for problems and situations interpreting results in the context of a given problem evaluating methods and solutions including how they may have been affected by assumptions made Fermi estimation making fast, rough estimates of quantities which are either difficult or impossible to measure directly 	 Critical analysis of given data and Models Presenting logical and Reasoned Arguments on context criticising arguments of others Communicating Mathematical Approaches and Solutions Summarising and report writing Analysing Critically Comparing results from a model with real data Critical analysis of data quoted in media, political campaigns, marketing etc 	End of year assessment

Useful Resources for Supporting Your Child at Home:	Homework:
https://integralmaths.org/ https://padlet.com/andrewharrison6/ks5- resources-uej0gwybac1nnc9f	 Homework is much more extensive, and we expect students to take control of their own work and spend longer on It (a minimum of 300 mins per week). Minimum Expectations are: All questions especially "P" & "E" questions from exercises in the textbooks are to be completed selfmarked and corrected. All MEI Section test to be completed online this is marked by the online program When requested Topic Assessment tests and exam practice questions might be set by teachers. Other Topic specific questions are available in Class Material in Teams.