## **Subject: Maths Pure Curriculum**

## Year 12



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

	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 <ul><li>Representing financial situations graphically</li></ul> <li>Taxation</li> <li>Income tax, national insurance, VAT</li>	January assessment

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## Repayments and cost of credit

Student loans and mortgages Annual percentage rate (APR)

## Solutions to financial problems

- Effect of inflation
- Currency exchange including commission
- Budgeting

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

Useful Resources for Supporting Your Child at Home:	Homework:
https://integralmaths.org/ https://padlet.com/andrewharrison6/ks5-resources- uej0gwybac1nnc9f	<ul> <li>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).</li> <li>Minimum Expectations are:</li> <li>All questions especially "P" &amp; "E" questions from exercises in the textbooks are to be completed self-marked and corrected.</li> <li>All MEI Section test to be completed online this is marked by the online program</li> <li>When requested Topic Assessment tests and exam practice questions might be set by teachers.</li> <li>Other Topic specific questions are available in Class Material in Teams.</li> </ul>