

The English Martyrs Catholic School and Sixth Form College

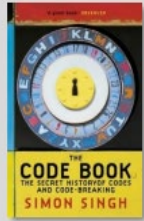
<u>Year 11 Maths Foundation</u>	<u>Module 1</u>	<u>Module 2</u>	<u>Module 3</u>
<u>Topic Theme and Intent</u>	Within this first Module, Year 11 students will cover 5 main areas of the curriculum which are: Number, Algebra, Ratio and Proportion, and Shape.	Tailored curriculum This may vary from class to class based on a RAG analysis of November mock.	Exam revision which may vary from class to class based on RAG analysis of March mock.
<u>Knowledge and Skills</u>	<p><u>Data</u>: Pie charts, frequency polygons, scatter graphs</p> <p><u>Number</u>: Making calculations in standard form, Fractions and percentages recap</p> <p><u>Algebra</u>: Solving quadratics</p> <p><u>Ratio and Proportion</u>: Ratio recap</p> <p><u>Shape</u>: Vectors, Arc length, area of a sector.</p>	Students will complete a tailored curriculum that addresses their mathematical weakness and misconceptions identified from their term 1 mock. At this stage some students may extend their knowledge within certain topics to access more challenging content.	Students fine tune their exam technique, further their understanding of mark schemes and fully prepare themselves for their GCSE exam.
<u>Literacy Links</u>	<p>Reading: Read and interpret pie charts.</p> <p>Writing: Write numbers in standard form.</p> <p>Oracy: Explain the process need to calculate the perimeter of a semi-circle.</p>	<p>Reading: Picking out important information from applied and problem-solving questions.</p> <p>Writing: Model good answers.</p> <p>Oracy: Making sure students use the correct vocabulary when giving verbal answers.</p>	<p>Reading: Picking out important information from applied and problem-solving questions.</p> <p>Writing: Model good answers.</p> <p>Oracy: Making sure students use the correct vocabulary when giving verbal answers.</p>
<u>Essential Vocabulary</u>	Vector, column vectors, sector, arc, factorising, correlation	Compound interest, indices, HCF, LCM, Inequalities, sequences, expanding & factorising, Pythagoras, surface area, loci, constructions, plans & elevations, scatter graphs,	Direct & inverse proportion, reverse percentage, standard form, density, speed, changing the subject, quadratics, cubic, reciprocal, simultaneous equations, gradient of a line, equation of a line, similar shapes, SOHCAHTOA
<u>Catholic Social Teaching</u>	<p>Love and Charity: When teaching scatter graphs we conduct an investigation into the correlation of love and happiness. Then link this to charity.</p> <p>Temperance: Understanding that moderation is needed to use the resources given to us on Earth. Looking at trends and numerical patterns of declining ecological values.</p> <p>Wonder: Teaching of the golden ratio and its impact throughout nature.</p>	<p>Courage: Challenge questions in lessons and praise for those answering and "giving it a go"</p> <p>Participation: Pupils are encouraged to fully participate within lessons and mastery.</p> <p>Human Dignity: The development of mathematical literacy is a vitally important social justice issue.</p>	<p>Participation: Pupils are encouraged to fully participate within lessons and mastery.</p> <p>Faith: Pupils are to have faith in themselves and in the work they have put into their Maths that they will get the results at GCSE that they deserve.</p>



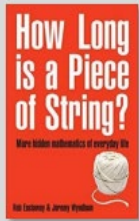
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Disciplinary Reading

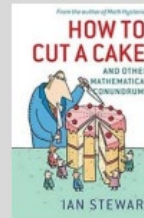
Reading for Pleasure



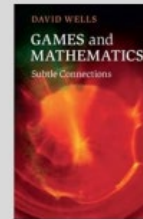
The Code Book by Simon Singh



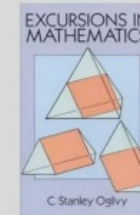
How Long Is a Piece of String by Rob



How to Cut a Cake by Ian Stewart



Game and Mathematics by David Wells



Excursions in Mathematics by C. Standley Ogilvy