

## St Mary's CE High School Curriculum Map 2022-23



### Subject: Mathematics Foundation tier

Year: 11

Mathematics is an interconnected subject in which students need to be able to move fluently between representations of mathematical ideas. The programme of study is organised into apparently distinct domains, but students should build on key stage 3 and connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems. They should also apply their mathematical knowledge in science, geography, computing and other subjects.

The curriculum is taught through the mathematical strands of: Number and Ratio, Algebra, Geometry and Measures, Statistics and Probability

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<b>CONTENT</b> <i>Declarative / core / powerful Knowledge – ‘Know What’</i>	Sequences and graphs	<b>Proportional reasoning Similarity Bounds and errors Positional vectors</b>	<b>Revision</b>	<b>Revision</b>	<b>Revision and public exams</b>	<b>Revision and public exams</b>
<b>Intent</b>	Sequences and graphs share similar themes and putting these topics together can help make links with these topics.	Proportional reasoning and similarity both share common themes and are an important aspect of GCSE maths so they are specifically getting recapped here. These two final topics are areas that are typically forgotten so they have been left as the last topics to cover	Students will spend this term working on bespoke revision of topics based on the individual needs of students and classes. Topics covered may vary by class.	Students will spend this term working on bespoke revision of topics based on the individual needs of students and classes. Topics covered may vary by class.	Students will spend this term working on bespoke revision of topics based on the individual needs of students and classes. Topics covered may vary by class.	Students will spend this term working on bespoke revision of topics based on the individual needs of students and classes. Topics covered may vary by class.
<b>Skills</b> <i>Procedural Knowledge – ‘Know How’</i>	Continue a linear pattern  Find a position to term rule  Use a position to term rule to find the term at any position or decide if a number appears in the pattern	Work with direct proportion in a variety of context including pie charts, metric conversions, currency conversions, similar shapes, enlargements  Work with inverse proportion				

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	<p>Find missing terms in Fibonacci, geometric of quadratic style sequences</p> <p>Plot graphs of quadratics</p> <p>Use a quadratic graph to solve an equation</p> <p>Use equations of lines to solve problems</p> <p>Find equations of parallel lines</p>	<p>Find lower and upper bounds of numbers</p> <p>Add or subtract column vectors</p> <p>Find a scalar multiplier of a vector</p> <p>Form vector expressions from a diagram</p>				
<b>Key Questions</b>	<p>Give me three examples of a line which is parallel to...</p> <p>What is the gradient of a line with an equation of...</p>	<p>What number is a factor 9 and 6?</p>				
<b>Assessment</b>	<p>Students will be assessed through a retrieval quiz every 2 weeks in class. A half termly assessment will be completed in class that covers all the content taught within the half term.</p>	<p>Students will be assessed through a retrieval quiz every 2 weeks in class. A half termly assessment will be completed in class that covers all the content taught within the half term.</p>				
<b>Links to careers/wider world</b>	<p>STEM, Finance</p>	<p>Shopping (what is best value for money)</p> <p>Currency conversions</p>				