

# Maths

**Teachers:** Lee Thompson, Antonia O’Mullane, George Chatfield, Chris Devaney, Danielle Thompson, Andrew Banks, Jon Steels, Gavin White and Toby Adams.

The Maths department offer skills in line with the national curriculum under five categories namely: algebra, calculating, geometry and measures, number systems, and statistics and probability. Teaching is engaging which enables pupils to acquire key mathematical skills that builds on their prior knowledge and addresses any gaps in understanding. The Maths curriculum is supplemented by access to TT Rock stars’ software to ensure regular opportunities for consolidation, revision and memory connections to be made. All pupils have the opportunity to have intervention sessions when needed, to boost their numeracy skills. Students in Key Stage 4 work towards gaining Mathematics qualifications including Entry Level, Functional Skills and GCSE, so that students can aim to gain a qualification that is achievable and tailored to them.

## Schemes of work:

\*Although there is a clear structure to the maths curriculum, additional time may be needed to review content from previous year.

\*\*Year 7 curriculum subject to change by Nurture teacher

	Autumn One	Autumn Two	Spring One	Spring Two	Summer One	Summer Two
<b>Year 7</b>	<b>Number 1 - Calculating and Place Value</b> <ul style="list-style-type: none"> <li>Place value</li> <li>Rounding</li> <li>4 operations</li> </ul> <b>Number 2- Fractions, Decimals Percentages</b> <ul style="list-style-type: none"> <li>Reading decimal scales</li> <li>Mixed numbers</li> </ul> <b>Number 3- Ratio and Proportion</b> <ul style="list-style-type: none"> <li>Ratio notation</li> </ul>	<b>Handling data 1-Statistical Measure</b> <ul style="list-style-type: none"> <li>Interpret/draw pictographs, bar charts</li> <li>Use a tally chart</li> </ul> <b>Algebra 1- Equations</b> <ul style="list-style-type: none"> <li>Missing numbers in simple calculations</li> </ul> <b>Geometry and Measure 1-Mensuration</b> <ul style="list-style-type: none"> <li>Calendars</li> <li>Time</li> </ul>	<b>Number 4 – Properties of Number</b> <ul style="list-style-type: none"> <li>Multiples</li> </ul> <b>Algebra 2- Functions, Coordinates and Graphs</b> <ul style="list-style-type: none"> <li>Coordinates</li> </ul> <b>Geometry and Measure 2- Geometrical Reasoning</b> <ul style="list-style-type: none"> <li>Angles (different types)</li> </ul>	<b>Geometry and measure 3 – Constructions</b> <ul style="list-style-type: none"> <li>2D shapes</li> </ul> <b>Algebra 3-Sequences</b> <ul style="list-style-type: none"> <li>Function machines (1 step)</li> <li>Continuing a sequence</li> </ul>	<b>Number 5- Calculating and Place Value</b> <ul style="list-style-type: none"> <li>Number lines</li> <li>Negative numbers</li> </ul> <b>Handling data 3 – Probability</b> <ul style="list-style-type: none"> <li>Chance/Probability</li> </ul>	<b>Geometry and Measure 4 - Transformations</b> <ul style="list-style-type: none"> <li>Reflection</li> </ul> <b>Handling data 4 - Interpreting and Representing Data</b> <ul style="list-style-type: none"> <li>Interpret data</li> </ul> <b>Geometry and Measure 5 - Mensuration 2</b> <ul style="list-style-type: none"> <li>Measuring</li> <li>Perimeter and area</li> </ul>
<b>Year 8</b>	<b>Number 1- Calculating and Place Value</b> <ul style="list-style-type: none"> <li>Written methods of multiplication and division</li> <li>Multiplication/division by 10, 100, 1000</li> <li>Rounding</li> </ul>	<b>Handling data 1-Statistical Measure</b> <ul style="list-style-type: none"> <li>Data collection</li> <li>Two way tables</li> </ul> <b>Algebra 1- Equations</b> <ul style="list-style-type: none"> <li>Simplifying expressions</li> <li>Like terms</li> </ul> <b>Geometry and Measure 1-Mensuration</b> <ul style="list-style-type: none"> <li>Perimeter and area</li> <li>Measuring and drawing angles</li> </ul>	<b>Number 4 – Properties of Number</b> <ul style="list-style-type: none"> <li>Multiples</li> <li>Factors</li> </ul> <b>Algebra 2- Functions, Coordinates and Graphs</b> <ul style="list-style-type: none"> <li>Coordinates- 4 quadrants</li> </ul>	<b>Handling Data 2- Interpreting and Representing Data</b> <ul style="list-style-type: none"> <li>Mode, median and range</li> </ul> <b>Geometry and measure 3 – Constructions</b> <ul style="list-style-type: none"> <li>3d shapes-faces, vertices, edges</li> </ul> <b>Algebra 3- Sequences</b>	<b>Number 5- Calculating and Place Value</b> <ul style="list-style-type: none"> <li>Estimating</li> <li>Add/subtract with negative numbers (double negative)</li> <li>Multiplication/division negative numbers</li> </ul> <b>Handling data 3 – Probability</b> <ul style="list-style-type: none"> <li>Probability scale</li> </ul>	<b>Geometry and Measure 4- Transformations</b> <ul style="list-style-type: none"> <li>Rotation</li> </ul> <b>Handling data 4 - Interpreting and Representing Data</b> <ul style="list-style-type: none"> <li>Pie charts</li> </ul> <b>Geometry and Measure 5- Mensuration 2</b> <ul style="list-style-type: none"> <li>Working with circles</li> </ul>

	<p><b>Number 2-Fractions, Decimals and Percentages</b></p> <ul style="list-style-type: none"> <li>Add/subtract decimals</li> <li>Equivalent fractions</li> <li>Simplifying</li> <li>Introduction to percentages</li> <li>Write percentage as a decimal</li> </ul> <p><b>Number 3- Ratio and Proportion</b></p> <ul style="list-style-type: none"> <li>Ratio calculations/comparing</li> </ul>		<p><b>Geometry and Measure 2- Geometrical Reasoning</b></p> <ul style="list-style-type: none"> <li>Properties of triangles/quadrilaterals</li> <li>Angles rules-missing angles</li> </ul>	<ul style="list-style-type: none"> <li>Function machines (2 step)</li> <li>Missing terms</li> <li>Term to term rule</li> </ul>	<ul style="list-style-type: none"> <li>Experimental probability</li> </ul>	
Year 9	<p><b>Number 1- Calculating and Place Value</b></p> <ul style="list-style-type: none"> <li>Rounding (sf)</li> <li>BIDMAS</li> </ul> <p><b>Number 2-Fractions, Decimals and Percentages</b></p> <ul style="list-style-type: none"> <li>Add/subtract fractions</li> <li>fraction/percentage of a Quantity</li> </ul> <p><b>Number 3- Ratio and Proportion</b></p> <ul style="list-style-type: none"> <li>Direct proportion</li> </ul>	<p><b>Handling data 1- Statistical Measure</b></p> <ul style="list-style-type: none"> <li>Grouped frequency</li> <li>Continuous data</li> <li>Perimeter and area (formula)</li> </ul> <p><b>Algebra 1- Equations</b></p> <ul style="list-style-type: none"> <li>Expanding brackets</li> </ul> <p><b>Geometry and Measure 1-Mensuration</b></p> <ul style="list-style-type: none"> <li>Perimeter and area of compound shapes</li> </ul>	<p><b>Number 4 – Properties of Number</b></p> <ul style="list-style-type: none"> <li>Square/cube numbers</li> <li>Primes</li> <li>LCM</li> <li>HCF</li> </ul> <p><b>Algebra 2- Functions, Coordinates and Graphs</b></p> <ul style="list-style-type: none"> <li>Distance speed graphs</li> </ul> <p><b>Geometry and Measure 2- Geometrical Reasoning</b></p> <ul style="list-style-type: none"> <li>Angles rules</li> </ul>	<p><b>Handling Data 2- Interpreting and Representing Data</b></p> <ul style="list-style-type: none"> <li>Mean</li> <li>Scatter graphs and correlation</li> <li>Venn diagrams</li> </ul> <p><b>Geometry and measure 3 – Constructions</b></p> <ul style="list-style-type: none"> <li>Nets</li> </ul> <p><b>Algebra 3- Sequences</b></p> <ul style="list-style-type: none"> <li>Triangular numbers</li> <li>Square numbers</li> <li>Nth term</li> </ul>	<p><b>Number 5- Calculating and Place Value</b></p> <ul style="list-style-type: none"> <li>Significant figures</li> <li>Appropriate measures and units</li> </ul> <p><b>Handling data 3 – Probability</b></p> <ul style="list-style-type: none"> <li>Theoretical and experimental probability</li> </ul>	<p><b>Geometry and Measure 4- Transformations</b></p> <ul style="list-style-type: none"> <li>Enlargement</li> <li>Tessellating shapes</li> </ul> <p><b>Handling data 4 - Interpreting and Representing Data</b></p> <ul style="list-style-type: none"> <li>Linear graphs</li> </ul> <p><b>Geometry and Measure 5- Mensuration 2</b></p> <ul style="list-style-type: none"> <li>Volume- cubes/cuboids</li> <li>Circles- area and circumference</li> </ul>
Year 10	<p><b>Number 1- Calculating and Place Value</b></p> <ul style="list-style-type: none"> <li>BIDMAS (negative numbers)</li> <li>Rounding errors</li> </ul> <p><b>Number 2-Fractions, Decimals and Percentages</b></p> <ul style="list-style-type: none"> <li>Percentage increase/decrease</li> <li>Multiply/divide decimals</li> </ul>	<p><b>Handling data 1- Statistical Measure</b></p> <ul style="list-style-type: none"> <li>Cumulative frequency</li> </ul> <p><b>Algebra 1- Equations</b></p> <ul style="list-style-type: none"> <li>Solving Expressions</li> </ul> <p><b>Geometry and Measure 1-Mensuration</b></p> <ul style="list-style-type: none"> <li>Area-triangles parallelogram, trapezium, kite, rhombus</li> </ul>	<p><b>Number 4 – Properties of Number</b></p> <ul style="list-style-type: none"> <li>Powers/roots</li> </ul> <p><b>Algebra 2- Functions, Coordinates and Graphs</b></p> <ul style="list-style-type: none"> <li>Linear graphs</li> <li>Coordinates and midpoints</li> </ul>	<p><b>Handling Data 2- Interpreting and Representing Data</b></p> <ul style="list-style-type: none"> <li>Creating scatter graphs</li> <li>Two way Tables</li> <li>Stem and leaf diagrams</li> </ul> <p><b>Geometry and measure 3 – Constructions</b></p> <ul style="list-style-type: none"> <li>Scale diagrams</li> </ul> <p><b>Algebra 3- Sequences</b></p>	<p><b>Number 5- Calculating and Place Value</b></p> <ul style="list-style-type: none"> <li>Standard form</li> </ul> <p><b>Handling data 3 – Probability</b></p> <ul style="list-style-type: none"> <li>Probability-tree diagrams</li> <li>Combined events</li> </ul>	<p><b>Geometry and Measure 4- Transformations</b></p> <ul style="list-style-type: none"> <li>Transformation</li> </ul> <p><b>Handling data 4 - Interpreting and Representing Data</b></p> <ul style="list-style-type: none"> <li>Pie charts (scaling method)</li> <li>To compare two sets of data from statistical tables and diagrams</li> </ul>

	<ul style="list-style-type: none"> <li>Convert between fractions/decimals and percentages</li> </ul> <p><b>Number 3- Ratio and Proportion</b></p> <ul style="list-style-type: none"> <li>Graphs and direct proportion</li> </ul>		<p><b>Geometry and Measure 2- Geometrical Reasoning</b></p> <ul style="list-style-type: none"> <li>Parallel/perpendicular lines</li> </ul>	<ul style="list-style-type: none"> <li>Nth term (with algebra)</li> </ul>		<p><b>Geometry and Measure 5- Mensuration 2</b></p> <ul style="list-style-type: none"> <li>Volumes- prisms, cylinders</li> </ul>	
<b>Year 11</b>	<p><b>Number</b></p> <ul style="list-style-type: none"> <li>Multiply divide fractions</li> <li>Powers of 10</li> <li>Inverse proportion</li> </ul> <p><b>Handling Data</b></p> <ul style="list-style-type: none"> <li>Sets and Venn diagrams</li> </ul> <p><b>Algebra</b></p> <ul style="list-style-type: none"> <li>Straight line graphs</li> <li>Quadratic equation graphs</li> <li>Factorising</li> </ul>	<p><b>Geometry</b></p> <ul style="list-style-type: none"> <li>Pythagoras Theorem</li> <li>Trigonometric</li> <li>Loci</li> <li>Interior/external angles polygons</li> </ul> <p><b>Ratio and Proportion</b></p> <ul style="list-style-type: none"> <li>Interest</li> </ul>	<b>Revision</b>				

**Syllabus materials KS4:**

[AQA | Mathematics | ELC | Mathematics](#)

[AQA | Subjects | Mathematics | Functional Skills](#)

[AQA | Mathematics | GCSE | Mathematics](#)

**Careers in Maths:**

1438\_My Learning My Future\_Mathematics\_FINAL.pdf (careersandenterprise.co.uk)