

# Maths Curriculum Map Overview

Please note further information can be found in the mathematics curriculum sequencing document

## Key Stage 3

KS3 Year 7	Autumn Term			Spring Term			Summer Term		
Topic/content	<p>Students will be taught a sequence of lessons focusing on:</p> <ul style="list-style-type: none"> <li>Forming Expressions</li> <li>Substitution</li> <li>Sequences</li> </ul>	<p>Students will be taught a sequence of lessons focusing on:</p> <ul style="list-style-type: none"> <li>Directed number</li> </ul>	<p>Students will be taught a sequence of lessons focusing on:</p> <ul style="list-style-type: none"> <li>Powers of ten</li> <li>Standard form</li> <li>Estimation</li> </ul>	<p>Students will be taught a sequence of lessons focusing on:</p> <ul style="list-style-type: none"> <li>Calculations in context</li> <li>Decimal arithmetic</li> <li>Order of Operations</li> <li>FDPR</li> </ul>	<p>Students will be taught a sequence of lessons focusing on:</p> <ul style="list-style-type: none"> <li>Solving one step equations</li> <li>Solving two step equations</li> </ul>	<p>Students will be taught a sequence of lessons focusing on:</p> <ul style="list-style-type: none"> <li>Properties of 2D shapes</li> <li>Angle facts</li> <li>Angles in polygons</li> <li>Congruent shapes</li> </ul>	<p>Students will be taught a sequence of lessons focusing on:</p> <ul style="list-style-type: none"> <li>Linking fractions and ratio notation</li> <li>Dividing amounts in a ratio</li> <li>Arithmetic with fractions</li> </ul>	<p>Students will be taught a sequence of lessons focusing on:</p> <ul style="list-style-type: none"> <li>Exploring properties of factors, multiples and primes;</li> <li>Conjectures and counter examples</li> </ul>	<p>Students will be taught a sequence of lessons focusing on:</p> <ul style="list-style-type: none"> <li>Area of 2D shapes;</li> <li>Surface area of prisms;</li> <li>Converting units of length, area and volume.</li> </ul>

<b>KS3 Year 8</b>	<b>Autumn Term</b>			<b>Spring Term</b>			<b>Summer Term</b>		
Topic/content	Students will be taught a sequence of lessons focusing on: <ul style="list-style-type: none"> <li>• Index laws</li> <li>• Expanding single brackets</li> <li>• Factorising</li> </ul>	Students will be taught a sequence of lessons focusing on: <ul style="list-style-type: none"> <li>• Percentage of amounts</li> <li>• Percentage increase and decrease</li> <li>• Simple interest</li> </ul>	Students will be taught a sequence of lessons focusing on: <ul style="list-style-type: none"> <li>• Angles on parallel lines</li> <li>• Multi-step angle problems</li> </ul>	Students will be taught a sequence of lessons focusing on: <ul style="list-style-type: none"> <li>• Currency conversions;</li> <li>• Converting units of measure;</li> <li>• Compound measures;</li> <li>• Solving problems involving scale.</li> </ul>	Students will be taught a sequence of lessons focusing on: <ul style="list-style-type: none"> <li>• Real life graphs;</li> <li>• Distance-time graphs;</li> <li>• Plotting linear and quadratic graphs</li> </ul>	Students will be taught a sequence of lessons focusing on: <ul style="list-style-type: none"> <li>• Solving equations Regions.</li> </ul>	Students will be taught a sequence of lessons focusing on: <ul style="list-style-type: none"> <li>• Isometric drawing;</li> <li>• Plans and elevations;</li> <li>• Scale drawings and enlargement;</li> </ul>	Students will be taught a sequence of lessons focusing on: <ul style="list-style-type: none"> <li>• Volume of prisms</li> <li>• Area and circumference of circles</li> <li>• Volume and surface area of cylinders.</li> </ul>	Students will be taught a sequence of lessons focusing on: <ul style="list-style-type: none"> <li>• Averages and measures of spread.</li> <li>• Draw and interpret bar charts, pie charts and line graphs.</li> </ul>

<b>KS3 Year 9</b>	<b>Autumn Term</b>			<b>Spring Term</b>			<b>Summer Term</b>		
Topic/content	Students will be taught a sequence of lessons focusing on: <ul style="list-style-type: none"> <li>• Listing outcomes</li> <li>• Calculating probabilities.</li> <li>• Venn Diagrams</li> </ul>	Students will be taught a sequence of lessons focusing on: <ul style="list-style-type: none"> <li>• Expand, simplify and factorise expressions</li> <li>• Form and solve equations</li> <li>• Rearrange formulae</li> <li>• Sequences</li> </ul>	Students will be taught a sequence of lessons focusing on: <ul style="list-style-type: none"> <li>• Pythagoras' theorem</li> </ul>	Students will be taught a sequence of lessons focusing on: <ul style="list-style-type: none"> <li>• Repeated percentage changes;</li> <li>• Compound interest and depreciation;</li> <li>• Reverse percentages</li> </ul>	Students will be taught a sequence of lessons focusing on: <ul style="list-style-type: none"> <li>• Negative and fractional index laws</li> <li>• Calculations with standard form</li> <li>• Surds</li> </ul>	Students will be taught a sequence of lessons focusing on: <ul style="list-style-type: none"> <li>• Trigonometry</li> <li>• Transformations</li> <li>• Enlargement and Similarity</li> <li>• Vector Calculations</li> </ul>	Students will be taught a sequence of lessons focusing on: <ul style="list-style-type: none"> <li>• Speed, distance, time</li> <li>• Density, mass, volume</li> <li>• Pressure</li> </ul>	Students will be taught a sequence of lessons focusing on: <ul style="list-style-type: none"> <li>• Equation of a straight line</li> <li>• Equation given point</li> </ul>	Students will be taught a sequence of lessons focusing on: <ul style="list-style-type: none"> <li>• Constructions</li> <li>• Loci</li> </ul>

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## Key Stage 4

KS4 Year 10	Autumn Term			Spring Term			Summer Term		
Topic/content	Students will be taught a sequence of lessons focusing on:	Students will be taught a sequence of lessons focusing on:	Students will be taught a sequence of lessons focusing on:	Students will be taught a sequence of lessons focusing on:	Students will be taught a sequence of lessons focusing on:	Students will be taught a sequence of lessons focusing on:	Students will be taught a sequence of lessons focusing on:	Students will be taught a sequence of lessons focusing on:	Students will be taught a sequence of lessons focusing on:
	<ul style="list-style-type: none"> <li>• Rounding</li> <li>• Estimation</li> <li>• Error intervals</li> <li>• Upper and lower bounds; Related calculations</li> </ul>	<ul style="list-style-type: none"> <li>• Averages from tables</li> <li>• Represent and interpret data</li> </ul>	<ul style="list-style-type: none"> <li>• Factorising quadratics;</li> <li>• Solve quadratics</li> <li>• Algebraic Fractions</li> </ul>	<ul style="list-style-type: none"> <li>• Product rule for counting;</li> <li>• Probability trees</li> <li>• Two way tables</li> <li>• Venn diagrams</li> </ul>	<ul style="list-style-type: none"> <li>• Simultaneous equations</li> <li>• Direct and Inverse proportion</li> </ul>	<ul style="list-style-type: none"> <li>• Area of triangles using sine rule;</li> <li>• Sine Rule</li> <li>• Cosine Rule</li> </ul>	<ul style="list-style-type: none"> <li>• Plot graphs</li> <li>• Equation of a line</li> <li>• Solve linear simultaneous equations graphically; Equation of parallel and perpendicular lines</li> <li>• Plot non linear graphs</li> <li>• Circle geometry.</li> </ul>	<ul style="list-style-type: none"> <li>• Area of circles and sectors;</li> <li>• Calculating arc lengths;</li> <li>• Area of segments; Volume and surface area of cylinders and spheres.</li> </ul>	<ul style="list-style-type: none"> <li>• Volume and surface area of prisms, pyramids and cones</li> <li>• Volume of a frustrum.</li> </ul>

KS4 Year 11	Autumn Term			Spring Term			Summer Term		
	Topic/content	Students will be taught a sequence of lessons focusing on:	Students will be taught a sequence of lessons focusing on:	Students will be taught a sequence of lessons focusing on:	Students will be taught a sequence of lessons focusing on:	Students will be taught a sequence of lessons focusing on:	Guided practice and consolidation of content	Guided practice and consolidation of content	
	<ul style="list-style-type: none"> <li>Fractions, decimals, percentage and ratio</li> <li>Recurring decimals;</li> <li>Algebraic fractions</li> </ul>	<ul style="list-style-type: none"> <li>Circle Theorems</li> </ul>	<ul style="list-style-type: none"> <li>Vectors;</li> <li>Similar shapes</li> <li>Area and volume of similar shapes</li> <li>Congruency</li> </ul>	<ul style="list-style-type: none"> <li>Forming and solving equations</li> <li>Rearranging formulae</li> <li>Algebraic proof;</li> <li>Functions</li> <li>Iterative processes</li> </ul>	<ul style="list-style-type: none"> <li>Inequalities as regions on graphs</li> <li>Solving quadratic inequalities</li> <li>Quadratic sequences</li> </ul>	<ul style="list-style-type: none"> <li>Key revision pieces identified by class analysis tools.</li> </ul>			

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## Key Stage 5

KS5 Year 12	Half term 1 Autumn 1	Half term 2 Autumn 2	Half term 3 Spring 1	Half term 4 Spring 2	Half term 5 Summer 1	Half term 6 Summer 2
Topic/content	Students will be taught a sequence of lessons focusing on: <ul style="list-style-type: none"> <li>• Proof</li> <li>• Surds and Indices</li> <li>• Quadratic Functions</li> <li>• Equations and Inequalities</li> <li>• Coordinate Geometry</li> </ul>	Students will be taught a sequence of lessons focusing on: <ul style="list-style-type: none"> <li>• Trigonometry</li> <li>• Polynomials</li> <li>• Graphs and transformations</li> <li>• The Binomial Expansion</li> </ul>	Students will be taught a sequence of lessons focusing on: <ul style="list-style-type: none"> <li>• Differentiation</li> <li>• Integration</li> <li>• Exponentials and Logarithms</li> </ul>	Students will be taught a sequence of lessons focusing on: <ul style="list-style-type: none"> <li>• Data collection</li> <li>• Data processing, presentation, interpretation</li> <li>• Probability</li> <li>• Vectors</li> <li>• Kinematics</li> </ul>	Students will be taught a sequence of lessons focusing on: <ul style="list-style-type: none"> <li>• The binomial distribution</li> <li>• Hypothesis testing with the binomial</li> <li>• Forces and Newton's laws of motion</li> <li>• Variable Acceleration</li> </ul>	Guided practice and consolidation of content

KS5 Year 13	Half term 1 Autumn 1	Half term 2 Autumn 2	Half term 3 Spring 1	Half term 4 Spring 2	Half term 5 Summer 1	Half term 6 Summer 2
Topic/content	Students will be taught a sequence of lessons focusing on: <ul style="list-style-type: none"> <li>• Proof</li> <li>• Trigonometry</li> <li>• Sequences and Series</li> <li>• Functions</li> <li>• Differentiation</li> </ul>	Students will be taught a sequence of lessons focusing on: <ul style="list-style-type: none"> <li>• Trigonometric functions</li> <li>• Further Algebra</li> <li>• Trigonometric Identities</li> <li>• Further differentiation</li> <li>• Integration</li> </ul>	Students will be taught a sequence of lessons focusing on: <ul style="list-style-type: none"> <li>• Parametric equations</li> <li>• Differential equations</li> <li>• Numerical Methods</li> <li>• Vectors</li> </ul>	Students will be taught a sequence of lessons focusing on: <ul style="list-style-type: none"> <li>• Probability</li> <li>• Statistical distributions</li> <li>• Hypothesis testing</li> <li>• Kinematics</li> <li>• Forces and motion</li> <li>• Moments</li> <li>• Projectiles</li> <li>• Friction</li> </ul>	Guided practice and consolidation of content	

