

<b>Year 11</b>	<b>Big Questions (Foundation)</b>	<b>Small Questions Foundation</b>	<b>Big Questions Higher</b>	<b>Small Questions Higher</b>	
<b>Autumn 1</b>	Similarity and congruence (8 lessons)	<ul style="list-style-type: none"> <li>Recap angle notation</li> <li>Congruent triangles</li> <li>Angle problems involving congruence</li> <li>Identify similar shapes</li> <li>Find missing lengths in similar shapes</li> <li></li> </ul>	Reciprocal and exponential graphs: Graph Transformations, Gradient and area under graphs ( 8 lessons)	<ul style="list-style-type: none"> <li>Plot reciprocal graphs</li> <li>Graphs of exponential growth and decay</li> <li>Graph transformations</li> <li>Area under a graph</li> <li>Gradient of a curve</li> </ul>	
	Recap of Pythagoras and Trigonometry (4 lessons)	<ul style="list-style-type: none"> <li>Calculating missing sides using Pythagoras</li> <li>Calculate missing angles using trigonometry</li> <li>Calculate missing sides using trigonometry</li> <li>Non calculator trigonometry</li> <li>Solving problems involving Pythagoras and trigonometry</li> </ul>	Further Trigonometry (8 lessons)	<ul style="list-style-type: none"> <li>3D Pythagoras</li> <li>3D Trigonometry</li> <li>Trigonometry and bearings</li> <li>Area of a triangle</li> <li>Use Sine rule</li> <li>Use Cosine rule</li> <li>Solving multi stage problems</li> </ul>	
	<b>Mini Test</b>				
	Recap averages and charts (10 lessons)	<ul style="list-style-type: none"> <li>Mean, mode, median and range for discrete data</li> <li>Calculate the mean, mode, median and range from a frequency table</li> <li>Calculate the mean from a grouped frequency table</li> <li>Mean, mode, median and range from a stem and leaf diagram</li> <li>Complete and interpret two-way tables</li> <li>Draw and interpret statistical charts</li> </ul>	Cumulative frequency, box plots and histograms (8 lessons)	<ul style="list-style-type: none"> <li>Recap averages</li> <li>Compare data using averages</li> <li>Draw and interpret cumulative frequency charts</li> <li>Median and IQR from cumulative frequency charts</li> <li>Draw and interpret box plots</li> <li>Compare data using box plots</li> <li>Draw and interpret histograms</li> <li>Estimate the mean from a histogram</li> </ul>	
<b>Mini Test</b>					

	<p><b>Rearranging equations, graphs of cubic and reciprocal functions</b> (6 lessons)</p>	<ul style="list-style-type: none"> <li>• Change the subject of an equation</li> <li>• Show that questions using consecutive numbers</li> <li>• Recap linear graphs</li> <li>• Recap quadratic graphs</li> <li>• Draw and interpret cubic graphs</li> <li>• Draw and interpret reciprocal graphs</li> </ul>	<p><b>Quadratics, expanding more than two brackets, sketching graphs, graphs of circles, cubes and quadratics</b> (7 lesson)</p>	<ul style="list-style-type: none"> <li>• Sketch quadratic graphs</li> <li>• Find solutions from quadratic graphs</li> <li>• Sketch cubic graphs</li> <li>• Solve simultaneous equations graphically</li> <li>• Solve linear inequalities graphically</li> <li>• Solve quadratic inequalities (sketching graph to show regions)</li> </ul>
	<p><b>Equations</b> (5 lessons)</p>	<ul style="list-style-type: none"> <li>• Recap solving linear equations</li> <li>• Solve simple simultaneous equations</li> <li>• Solve simultaneous equations which involving scaling up</li> <li>• Form and solve simultaneous equations</li> </ul>	<p><b>Circle Theorems</b> (6 lessons)</p>	<ul style="list-style-type: none"> <li>• Use circle theorems</li> <li>• the angle subtended by Prove circle theorems</li> <li>• Solve problems involving angles in circles</li> </ul>
	<p><b>Revision</b> <b>Half Term Assessment</b></p>			

<u>Year</u> <u>11</u>	<b>Big Questions (Foundation)</b>	<b>Small Questions Foundation</b>	<b>Big Questions (Higher)</b>	<b>Small Questions Higher</b>
<b>Autumn 2</b>	<p>Recap area and volume Circles, cylinders, cones and spheres (10 lessons)</p>	<ul style="list-style-type: none"> <li>• Recap basic volume and area work from year 10</li> <li>• Area of a circle</li> <li>• Circumference of a circle</li> <li>• Area of parts of circles</li> <li>• Perimeter of parts of circles</li> <li>• Area of compound shapes involving circles</li> <li>• Perimeter of compound shapes involving circles</li> <li>• Volume and surface area of a cylinder</li> <li>• Volume and surface area of cones and spheres</li> </ul>	<p>Circle geometry (5 lessons)</p>	<ul style="list-style-type: none"> <li>• Plot graphs of circles</li> <li>• Equation of a circle</li> <li>• Equation of the tangent to a circle</li> <li>• Solve problems involving equations of a circle and linear graphs</li> </ul>
	<p>Fractions and reciprocals (6 lessons)</p>	<ul style="list-style-type: none"> <li>• Recap calculating with fractions</li> <li>• Add and subtract mixed numbers</li> <li>• Multiply and divide mixed numbers</li> <li>• Reciprocals</li> </ul>	<p>Changing the subject of formulae (more complex), algebraic fractions solving equations arising from algebraic fractions,</p>	<ul style="list-style-type: none"> <li>• Change the subject of more complex equations (where subject occurs on both sides)</li> <li>• Simplify algebraic equations</li> <li>• Add and subtract algebraic equations</li> <li>• Multiply and divide algebraic equations</li> <li>• Solve algebraic equations</li> <li>• Simplify surds</li> <li>• Rationalise surds</li> <li>• Algebraic proof</li> <li>• Use function notation</li> <li>• Compound functions</li> <li>• Inverse Functions</li> </ul>

		rationalising surds, proof (10 lessons)	
<b>Mini Test</b>			
Indices and standard form (6 lessons)	<ul style="list-style-type: none"> <li>Recap index laws</li> <li>Convert large and small numbers into standard form</li> <li>Convert numbers from standard form</li> <li>Multiply and divide numbers in standard form</li> <li>Add and subtract numbers in standard form</li> </ul>	Vectors and geometric proof (10 lessons)	<ul style="list-style-type: none"> <li>Use vector notation</li> <li>Draw vectors</li> <li>Use vectors to explain simple paths</li> <li>Add and subtract vectors</li> <li>Multiply vectors by a scalar</li> <li>Parallel vectors (prove)</li> <li>Colinear vectors (prove)</li> <li>Solve geometric problems involving vectors</li> </ul>
<b>Mini Test</b>			
Revision for mocks		Revision for mocks	•
<b>Mock Exams</b>			

<u>Year 11</u>	<b>Big Questions Foundation</b>	<b>Small Questions Foundation</b>	<b>Big Questions Higher</b>	<b>Small Questions Higher</b>
<b>Spring 1</b>	Vectors (7 lessons)	<ul style="list-style-type: none"> <li>Understand column notation for vectors</li> <li>Draw column vectors</li> <li>Calculate with column vectors</li> <li>Identify if two column vectors are parallel</li> </ul>	Graphs of Trigonometric functions (6 lessons)	<ul style="list-style-type: none"> <li>Know exact values for sine, cosine and tangent</li> <li>Recognise and sketch trig graphs</li> <li>Use trig graphs to solve equations</li> </ul>
	<b>MINI TEST</b>			
		•	Direct and indirect proportion (8 lessons)	<ul style="list-style-type: none"> <li>Solve problems involving direct and indirect proportion</li> <li>Formal method for direct proportion</li> <li>Formal method for indirect proportion</li> <li>Exponential growth and decay questions</li> </ul>
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	<b>Mini Test</b>			
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	<b>REVISION HALF TERM ASSESSMENT</b>			

<u>Year</u> <u>11</u>	Big Questions (Foundation)	Small Questions Foundation	Big Questions (Higher)	Small Questions Higher
<b>Spring 2</b>		•		•
	<b>Mini Test</b>			
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<b>Mini Test</b>				



<u>Year</u> <u>11</u>	Big Questions Foundation	Small Questions Foundation	Big Questions Higher	Small Questions Higher
Summer 2		•		•
	Mini Test			
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	<b>MINI TEST</b>			
	Revision/Catch Up	Chance to catch up or revise any topics missed or rushed.		