

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

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

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

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

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

<u>Year</u> <u>11</u>	Big Questions (Foundation)	Small Questions Foundation	Big Questions (Higher)	Small Questions Higher
Spring 2		•		•
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	REVISION HALF TERM ASSESSMENT			

<u>Year</u> <u>11</u>	Big Questions (Foundation)	Small Questions Foundation	Big Questions (Higher)	Small Questions Higher
Summer 1		•		•
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	Mini Test			
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	REVISION HALF TERM ASSESSMENT			

<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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	MINI TEST			
	Revision/Catch Up	Chance to catch up or revise any topics missed or rushed.		