

Curriculum Assessment Map

Subject: Maths

Year 10 Foundation		Intent		Implementation		Impact	
Term 1 topics	Taught curriculum (teacher Led)	Learned curriculum (student Led)	Key skills demonstrated	Suggested wider activities including extra-curricular opportunities	Summative assessment Title/type	Assessment criteria	
1	Indices	Maths genie website. Corbett maths. Maths box. Century tech. Collins AQA GCSE .maths. Student book. Century Tech extra resources Oak National academy	Use positive integer powers and associated real roots (square, cube and higher) Recognise powers of 2, 3, 4, 5 Calculate with roots and with integer indices	Maths club Puzzles Maths in real life Maths Trip Wider applications of maths	Homework each week to monitor the progress. 45 Marks of exam style questions in the final week of each term. Full topic/progress list available on RAG worksheet	AO1 – Recall and use knowledge of the prescribed content AO2-Select and apply mathematical methods in a range of contexts. AO3- Interpret and analyse problems and generate strategies to solve them	
2	Pythagoras	Maths genie website. Corbett maths. Maths box. Century tech. Collins AQA GCSE .maths. Student book. Century Tech extra resources Oak National academy	Know the formula for Pythagoras' Theorem $a^2 + b^2 = c^2$ Apply it to find length in right angled triangles in two dimensional figures	Maths club Puzzles Maths in real life Trip Wider applications of maths	Homework each week to monitor the progress. 45 Marks of exam style questions in the final week of each term. Full topic/progress list available on RAG worksheet	AO1 – Recall and use knowledge of the prescribed content AO2-Select and apply mathematical methods in a range of contexts. AO3- Interpret and analyse problems and generate strategies to solve them	
3	Standard form	Maths genie website. Corbett maths. Maths box. Century tech. Collins AQA GCSE .maths. Student book. Century Tech extra resources Oak National academy	Understand and use place value (e.g. when working with very large or very small numbers) Calculate with and interpret standard form $A \times 10^n$ where $1 \leq A < 10$ and n is an integer	Maths club Puzzles Maths in real life Maths Trip Wider applications of maths.	Homework each week to monitor the progress. 45 Marks of exam style questions in the final week of each term. Full topic/progress list available on RAG worksheet	AO1 – Recall and use knowledge of the prescribed content AO2-Select and apply mathematical methods in a range of contexts. AO3- Interpret and analyse problems and generate strategies to solve them	

4	Calculating with percentages	<p>Maths genie website. Corbett maths. Maths box. Century tech. Collins AQA GCSE .maths. Student book. Century Tech extra resources Oak National academy</p>	<p>Solve problems involving percentage change, including: percentage increase / decrease problems original value problems simple interest, including in financial mathematics problems set in context using a multiplier</p>		<p>Homework each week to monitor the progress. 45 Marks of exam style questions in the final week of each term. Full topic/progress list available on RAG worksheet</p>	<p>AO1 – Recall and use knowledge of the prescribed content AO2-Select and apply mathematical methods in a range of contexts. AO3- Interpret and analyse problems and generate strategies to solve them</p>
5	Measures and bounds	<p>Maths genie website. Corbett maths. Maths box. Century tech. Collins AQA GCSE .maths. Student book. Century Tech extra resources Oak National academy</p>	<p>Apply and interpret limits of accuracy Use standard units of measure and related concepts (length, area, volume / capacity, mass, time, money etc) Use standard units of mass, length, time, money and other measures (including standard compound measures) using decimal quantities where appropriate Change freely between related standard units (e.g. time, length, area, volume / capacity, mass) and compound units (e.g. speed, rates of pay, prices, density, pressure) in numerical and algebraic contexts Use compound units such as speed, rates of pay, unit pricing, density and pressure</p>		<p>Homework each week to monitor the progress. 45 Marks of exam style questions in the final week of each term. Full topic/progress list available on RAG worksheet</p>	<p>AO1 – Recall and use knowledge of the prescribed content AO2-Select and apply mathematical methods in a range of contexts. AO3- Interpret and analyse problems and generate strategies to solve them</p>
6	Statistical measures	<p>Maths genie website. Corbett maths. Maths box. Century tech.</p>	<p>Interpret, analyse and compare the distributions of data sets from univariate empirical distributions through :</p>		<p>Homework each week to monitor the progress. 45 Marks of exam style questions in the final week of each term. Full</p>	<p>AO1 – Recall and use knowledge of the prescribed content</p>

		Collins AQA GCSE .maths. Student book. Century Tech extra resources Oak National academy	appropriate measures of central tendency (median, mean, mode and modal class) spread (range, including consideration of outliers) Apply statistics to describe a population Infer properties of populations or distributions from a sample, whilst knowing the limitations of sampling		topic/progress list available on RAG worksheet	AO2-Select and apply mathematical methods in a range of contexts. AO3- Interpret and analyse problems and generate strategies to solve them
7	Congruence	Maths genie website. Corbett maths. Maths box. Century tech. Collins AQA GCSE .maths. Student book. Century Tech extra resources Oak National academy	Use the basic congruence criteria for triangles (SSS, SAS, ASA, RHS) Apply angle facts, triangle congruence, similarity and properties of quadrilaterals to conjecture and derive results about angles and sides including Pythagoras' Theorem and the fact that the base angles of an isosceles triangle are equal, and use known results to obtain simple proofs		Homework each week to monitor the progress. 45 Marks of exam style questions in the final week of each term. Full topic/progress list available on RAG worksheet	AO1 – Recall and use knowledge of the prescribed content AO2-Select and apply mathematical methods in a range of contexts. AO3- Interpret and analyse problems and generate strategies to solve them

Year 10 Foundation	Intent		Implementation		Impact	
Term 2 topics	Taught curriculum (teacher Led)	Learned curriculum (student Led)	Key skills demonstrated	Suggested wider activities including extra-curricular opportunities	Summative assessment Title/type	Assessment criteria
1	Similarity	Maths genie website. Corbett maths. Maths box. Century tech. Collins AQA GCSE .maths. Student book. Century Tech extra resources Oak National academy	Apply and use the concepts of congruence and similarity, including the relationships between lengths in similar figures		Homework each week to monitor the progress. 45 Marks of exam style questions in the final week of each term. Full topic/progress list available on RAG worksheet	AO1 – Recall and use knowledge of the prescribed content AO2-Select and apply mathematical methods in a range of contexts. AO3- Interpret and analyse problems and generate strategies to solve them
2	Trigonometry	Maths genie website. Corbett maths. Maths box. Century tech. Collins AQA GCSE .maths. Student book. Century Tech extra resources Oak National academy	Know and use the trigonometric ratios $\sin\theta =$ $\text{opposite/hypotenuse}$, $\cos\theta =$ $\text{adjacent/hypotenuse}$ and $\tan\theta = \text{opposite/adjacent}$ Apply them to find angles and lengths in right-angled triangles in two dimensional figures Compare lengths using ratio notation		Homework each week to monitor the progress. 45 Marks of exam style questions in the final week of each term. Full topic/progress list available on RAG worksheet	AO1 – Recall and use knowledge of the prescribed content AO2-Select and apply mathematical methods in a range of contexts. AO3- Interpret and analyse problems and generate strategies to solve them

3	Perimeter and area	<p>Maths genie website. Corbett maths. Maths box. Century tech. Collins AQA GCSE .maths. Student book. Century Tech extra resources Oak National academy</p>	<p>Identify properties of the faces, surfaces, edges and vertices of: cube, cuboids, prisms, cylinders, pyramids, cones and spheres Calculate the perimeter of a 2D shape and composite shapes Know and apply formulae to calculate area of: triangles parallelograms trapezia Calculate the area of composite shapes Find the surface area of pyramids and composite solids</p>		<p>Homework each week to monitor the progress. 45 Marks of exam style questions in the final week of each term. Full topic/progress list available on RAG worksheet</p>	<p>AO1 – Recall and use knowledge of the prescribed content AO2-Select and apply mathematical methods in a range of contexts. AO3- Interpret and analyse problems and generate strategies to solve them</p>
4	Circumference and area	<p>Maths genie website. Corbett maths. Maths box. Century tech. Collins AQA GCSE .maths. Student book. Century Tech extra resources Oak National academy</p>	<p>Identify and apply circle definitions and properties, including centre, radius, chord, diameter, circumference, <u>tangent</u>, <u>arc</u>, <u>sector and segment</u> Know and use the formulae Circumference = $2\pi r = \pi d$ Area = πr^2</p> <p>Calculate the perimeter of 2D shapes including circles and composite shapes Calculate areas of circles and composite shapes Calculate surface area of spheres, cones and composite solids Calculate arc lengths, angles and areas of sectors of circles Calculate exactly with multiples of π</p>		<p>Homework each week to monitor the progress. 45 Marks of exam style questions in the final week of each term. Full topic/progress list available on RAG worksheet</p>	<p>AO1 – Recall and use knowledge of the prescribed content AO2-Select and apply mathematical methods in a range of contexts. AO3- Interpret and analyse problems and generate strategies to solve them</p>

5	Algebra recap and extension	<p>Maths genie website. Corbett maths. Maths box. Century tech. Collins AQA GCSE .maths. Student book. Century Tech extra resources Oak National academy</p>	<p>Understand and use the concepts and vocabulary of expressions, equations, formulae, identities, inequalities, terms and factors (review of Year 9) Simplify and manipulate algebraic expressions (including those involving surds) by: collecting like terms multiplying a single term over a bracket taking out common factors Deduce expressions to calculate the nth term of a linear sequence Solve linear equations in one unknown algebraically including those with the unknown on both sides of the equation (review of Year 9)</p>		<p>Homework each week to monitor the progress. 45 Marks of exam style questions in the final week of each term. Full topic/progress list available on RAG worksheet</p>	<p>AO1 – Recall and use knowledge of the prescribed content AO2-Select and apply mathematical methods in a range of contexts. AO3- Interpret and analyse problems and generate strategies to solve them</p>
6	Graphs recap and extension	<p>Maths genie website. Corbett maths. Maths box. Century tech. Collins AQA GCSE .maths. Student book. Century Tech extra resources Oak National academy</p>	<p>Solve geometrical problems on co-ordinate axes Use the form $y=mx+c$ to identify parallel lines Find the equation of the line through two given points, or through one point with a given gradient Identify and interpret gradients and intercepts of linear functions graphically and algebraically</p>		<p>Homework each week to monitor the progress. 45 Marks of exam style questions in the final week of each term. Full topic/progress list available on RAG worksheet</p>	<p>AO1 – Recall and use knowledge of the prescribed content AO2-Select and apply mathematical methods in a range of contexts. AO3- Interpret and analyse problems and generate strategies to solve them</p>

Year 10 Foundation	Intent		Implementation		Impact	
Term 3 topics	Taught curriculum (teacher Led)	Learned curriculum (student Led)	Key skills demonstrated	Suggested wider activities including extra-curricular opportunities	Summative assessment Title/type	Assessment criteria
1	Simultaneous equations	Maths genie website. Corbett maths. Maths box. Century tech. Collins AQA GCSE .maths. Student book. Century Tech extra resources Oak National academy	Solve two simultaneous equations in two variables (linear / linear) algebraically Find approximate solutions using a graph Translate simple situations or procedures into algebraic expressions or formulae; derive two simultaneous equations Solve the equations and interpret the solution		Homework each week to monitor the progress. 45 Marks of exam style questions in the final week of each term. Full topic/progress list available on RAG worksheet	AO1 – Recall and use knowledge of the prescribed content AO2-Select and apply mathematical methods in a range of contexts. AO3- Interpret and analyse problems and generate strategies to solve them

2	Properties of polygons	<p>Maths genie website. Corbett maths. Maths box. Century tech. Collins AQA GCSE .maths. Student book. Century Tech extra resources Oak National academy</p>	<p>Derive and use the sum of angles in a triangle (e.g. to deduce and use the angle sum in any polygon, and to derive properties of regular polygons) Derive and apply the properties and definitions of: special types of quadrilaterals, including square, rectangle, parallelogram, trapezium, kite and rhombus and triangles and other plane figures using appropriate language</p>		<p>Homework each week to monitor the progress. 45 Marks of exam style questions in the final week of each term. Full topic/progress list available on RAG worksheet</p>	<p>AO1 – Recall and use knowledge of the prescribed content AO2-Select and apply mathematical methods in a range of contexts. AO3- Interpret and analyse problems and generate strategies to solve them</p>
3	Real-life graphs	<p>Maths genie website. Corbett maths. Maths box. Century tech. Collins AQA GCSE .maths. Student book. Century Tech extra resources Oak National academy</p>	<p>Plot and interpret graphs (including reciprocal graphs) and graphs of non-standard functions in real contexts, to find approximate solutions to problems such as simple kinematics problems involving distance, speed and acceleration Interpret the gradient of a straight line as a rate of change</p>		<p>Homework each week to monitor the progress. 45 Marks of exam style questions in the final week of each term. Full topic/progress list available on RAG worksheet</p>	<p>AO1 – Recall and use knowledge of the prescribed content AO2-Select and apply mathematical methods in a range of contexts. AO3- Interpret and analyse problems and generate strategies to solve them</p>
4	2D representations of 3D shapes	<p>Maths genie website. Corbett maths. Maths box. Century tech. Collins AQA GCSE .maths. Student book. Century Tech extra resources Oak National academy</p>	<p>Construct and interpret plans and elevations of 3D shapes</p>		<p>Homework each week to monitor the progress. 45 Marks of exam style questions in the final week of each term. Full topic/progress list available on RAG worksheet</p>	<p>AO1 – Recall and use knowledge of the prescribed content AO2-Select and apply mathematical methods in a range of contexts. AO3- Interpret and analyse problems and generate strategies to solve them</p>

5	Probability	<p>Maths genie website. Corbett maths. Maths box. Century tech. Collins AQA GCSE .maths. Student book. Century Tech extra resources Oak National academy</p>	<p>Record, describe and analyse the frequency of outcomes of probability experiments using tables and frequency trees (review of Year 9) Apply the property that the probabilities of an exhaustive set of outcomes sum to one (review of Year 9) Apply the property that the probabilities of an exhaustive set of mutually exclusive events sum to one (review of Year 9) Construct theoretical possibility spaces for single and combined experiments with equally likely outcomes and use these to calculate theoretical probabilities (review of Year 9) Apply ideas of randomness, fairness and equally likely events to calculate expected outcomes or multiple future experiments Relate relative expected frequencies to theoretical probability, using appropriate language and the 0 – 1 probability scale Understand that empirical unbiased samples tend towards theoretical probability distributions with increasing sample size Enumerate sets and combinations of sets systematically using tables,</p>		<p>Homework each week to monitor the progress. 45 Marks of exam style questions in the final week of each term. Full topic/progress list available on RAG worksheet</p>	<p>AO1 – Recall and use knowledge of the prescribed content AO2-Select and apply mathematical methods in a range of contexts. AO3- Interpret and analyse problems and generate strategies to solve them</p>
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			grids, Venn diagrams and tree diagrams Calculate the probability of independent and dependent combined events, including using tree diagrams and other representations, and know the underlying assumptions			
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Curriculum Assessment Map

Subject: Maths

Year 10 Higher	Intent		Implementation		Impact	
Term 1 topics	Taught curriculum (teacher Led)	Learned curriculum (student Led)	Key skills demonstrated	Suggested wider activities including extra-curricular opportunities	Summative assessment Title/type	Assessment criteria
1	Calculating with percentages	Maths genie website. Corbett maths. Maths box. Century tech. Collins AQA GCSE .maths. Student book. Century Tech extra resources Oak National academy	Solve problems involving percentage change, including : percentage increase / decrease problems original value problems simple interest, including in financial mathematics problems set in context using a multiplier	Maths club Puzzles Maths in real life Maths Trip Wider Applications of maths club Etc....	Homework each week to monitor the progress. 45 Marks of exam style questions in the final week of each term. Full topic/progress list available on RAG worksheet	AO1 – Recall and use knowledge of the prescribed content AO2-Select and apply mathematical methods in a range of contexts. AO3- Interpret and analyse problems and generate strategies to solve them
2	Measures and bounds	Maths genie website. Corbett maths. Maths box. Century tech. Collins AQA GCSE .maths. Student book. Century Tech extra resources Oak National academy	Apply and interpret limits of accuracy including upper and lower bounds Use standard units of measure and related concepts (length, area, volume / capacity, mass, time, money etc) Use standard units of mass, length, time, money and other measures (including standard compound measures) using decimal quantities where appropriate Change freely between related standard units (e.g. time, length, area, volume / capacity, mass) and compound units (e.g. speed, rates of pay, prices, density, pressure) in numerical and algebraic contexts	Maths club Puzzles Maths in real life Maths Trip Wider applications of maths	Homework each week to monitor the progress. 45 Marks of exam style questions in the final week of each term. Full topic/progress list available on RAG worksheet	AO1 – Recall and use knowledge of the prescribed content AO2-Select and apply mathematical methods in a range of contexts. AO3- Interpret and analyse problems and generate strategies to solve them

3	Surds	<p>Maths genie website. Corbett maths. Maths box. Century tech. Collins AQA GCSE .maths. Student book. Century Tech extra resources Oak National academy</p>	<p>Calculate exactly with surds Simplify surd expressions involving squares (eg $\sqrt{12}=\sqrt{(4\times3)}=\sqrt{4}\times\sqrt{3}=2\sqrt{3}$) and rationalise denominators Recognise and use simple geometric progressions (rn where n is an integer and r is a surd)</p>		<p>Homework each week to monitor the progress. 45 Marks of exam style questions in the final week of each term. Full topic/progress list available on RAG worksheet</p>	<p>AO1 – Recall and use knowledge of the prescribed content AO2-Select and apply mathematical methods in a range of contexts. AO3- Interpret and analyse problems and generate strategies to solve them</p>
4	Statistics	<p>Maths genie website. Corbett maths. Maths box. Century tech. Collins AQA GCSE .maths. Student book. Century Tech extra resources Oak National academy</p>	<p>Construct and interpret diagrams for grouped discrete data and continuous data, i.e. histograms with equal and unequal class intervals and cumulative frequency graphs, and know their appropriate use Interpret, analyse and compare distributions of data sets from univariate empirical distributions through box plots interpret, analyse and compare the distributions of data sets from univariate empirical distributions through consideration of outliers, quartiles and inter-quartile range Draw estimated lines of best fit Make predictions Interpolate and extrapolate apparent trends whilst knowing the dangers of doing so Infer properties of populations or distributions from a sample, whilst knowing the limitations of sampling.</p>	<p>Maths club Puzzles Maths in real life Trip Wider applications of maths</p>	<p>Homework each week to monitor the progress. 45 Marks of exam style questions in the final week of each term. Full topic/progress list available on RAG worksheet</p>	<p>AO1 – Recall and use knowledge of the prescribed content AO2-Select and apply mathematical methods in a range of contexts. AO3- Interpret and analyse problems and generate strategies to solve them</p>

5	Indices	<p>Maths genie website. Corbett maths. Maths box. Century tech. Collins AQA GCSE .maths. Student book. Century Tech extra resources Oak National academy</p>	<p>Use positive integer powers and associated real roots (square, cube and higher) Recognise powers of 2, 3, 4, 5 Estimate powers and roots of any given positive number Calculate with roots and with integer and fractional indices</p>		<p>Homework each week to monitor the progress. 45 Marks of exam style questions in the final week of each term. Full topic/progress list available on RAG worksheet</p>	<p>AO1 – Recall and use knowledge of the prescribed content AO2-Select and apply mathematical methods in a range of contexts. AO3- Interpret and analyse problems and generate strategies to solve them</p>
6	Properties of polygons	<p>Maths genie website. Corbett maths. Maths box. Century tech. Collins AQA GCSE .maths. Student book. Century Tech extra resources Oak National academy</p>	<p>Derive and use the sum of angles in a triangle (e.g. to deduce and use the angle sum in any polygon, and to derive properties of regular polygons) Derive and apply the properties and definitions of: special types of quadrilaterals, including square, rectangle, parallelogram, trapezium, kite and rhombus and triangles and other plane figures using appropriate language (including knowing names and properties of isosceles, equilateral, scalene, right-angled, acute-angled, obtuse-angled triangles.</p>	<p>Maths club Puzzles Maths in real life Trip Wider applications of maths</p>	<p>Homework each week to monitor the progress. 45 Marks of exam style questions in the final week of each term. Full topic/progress list available on RAG worksheet</p>	<p>AO1 – Recall and use knowledge of the prescribed content AO2-Select and apply mathematical methods in a range of contexts. AO3- Interpret and analyse problems and generate strategies to solve them</p>

Year 10 Higher	Intent		Implementation		Impact	
Term 2 topics	Taught curriculum (teacher Led)	Learned curriculum (student Led)	Key skills demonstrated	Suggested wider activities including extra-curricular opportunities	Summative assessment Title/type	Assessment criteria
1	Congruence and Similarity	Maths genie website. Corbett maths. Maths box. Century tech. Collins AQA GCSE .maths. Student book. Century Tech extra resources Oak National academy	Use the basic congruence criteria for triangles (SSS, SAS, ASA, RHS) Apply angle facts, triangle congruence, similarity and properties of quadrilaterals to conjecture and derive results about angles and sides including the fact that the base angles of an isosceles triangle are equal, and use known results to obtain simple proofs Apply and use the concepts of congruence and similarity, including the relationships between lengths, areas and volumes in similar figures	Maths club Puzzles Maths in real life Trip Wider applications of maths	Homework each week to monitor the progress. 45 Marks of exam style questions in the final week of each term. Full topic/progress list available on RAG worksheet	AO1 – Recall and use knowledge of the prescribed content AO2-Select and apply mathematical methods in a range of contexts. AO3- Interpret and analyse problems and generate strategies to solve them
2	Pythagoras' Theorem and Trigonometry	Maths genie website. Corbett maths. Maths box. Century tech. Collins AQA GCSE .maths. Student book. Century Tech extra resources Oak National academy	Know the formula for Pythagoras' Theorem $a^2 + b^2 = c^2$ Apply it to find lengths in right angled triangles in two dimensional figures Know and use the trigonometric ratios		Homework each week to monitor the progress. 45 Marks of exam style questions in the final week of each term. Full topic/progress list available on RAG worksheet	AO1 – Recall and use knowledge of the prescribed content AO2-Select and apply mathematical methods in a range of contexts. AO3- Interpret and analyse problems and generate strategies to solve them

			<p> $\sin \theta = \frac{\text{opposite}}{\text{hypotenuse}}$, $\cos \theta = \frac{\text{adjacent}}{\text{hypotenuse}}$, $\tan \theta = \frac{\text{opposite}}{\text{adjacent}}$ </p> <p> Apply them to find lengths in right angled triangles in two dimensional figures Know the exact values of $\sin \theta$ and $\cos \theta$ for $\theta = 0^\circ, 30^\circ, 45^\circ, 60^\circ$ and 90° Know the exact value of $\tan \theta$ for $\theta = 0^\circ, 30^\circ, 45^\circ$ and 60° Apply angle facts, triangle congruence, similarity and properties of quadrilaterals to conjecture and derive results about angles and sides, including Pythagoras Theorem, and use known results to obtain simple proofs Compare lengths using ratio notation; make links to trigonometric ratios </p>			
3	Probability	<p> Maths genie website. Corbett maths. Maths box. Century tech. Collins AQA GCSE .maths. Student book. Century Tech extra resources Oak National academy </p>	<p> Apply ideas of randomness, fairness and equally likely events to calculate expected outcomes or multiple future experiments Relate relative expected frequencies to theoretical probability, using appropriate language and the 0 – 1 probability scale Understand that empirical unbiased samples tend towards theoretical probability distributions with increasing sample size </p>		<p> Homework each week to monitor the progress. 45 Marks of exam style questions in the final week of each term. Full topic/progress list available on RAG worksheet </p>	<p> AO1 – Recall and use knowledge of the prescribed content AO2-Select and apply mathematical methods in a range of contexts. AO3- Interpret and analyse problems and generate strategies to solve them </p>

			<p>Enumerate sets and combinations of sets systematically using tables, grids, Venn diagrams and tree diagrams</p> <p>Calculate the probability of independent and dependent combined events, including using tree diagrams and other representations, and know the underlying assumptions</p> <p>Know when to add and when to multiply two or more probabilities</p> <p>Calculate and interpret conditional probabilities through representation using expected frequencies with two-way tables, tree diagrams and Venn diagrams</p>			
4	Volume	<p>Maths genie website.</p> <p>Corbett maths.</p> <p>Maths box.</p> <p>Century tech.</p> <p>Collins AQA GCSE .maths.</p> <p>Student book.</p> <p>Century Tech extra resources</p> <p>Oak National academy</p>	<p>Compare lengths, areas and volumes using ratio notation</p> <p>Make links to similarity and scale factors</p> <p>Know and apply the formulae to calculate the volume of cuboids and other right prisms (including cylinders)</p> <p>Calculate the volume of spheres, pyramids, cones and composite solids</p> <p>Calculate exactly with multiples of π</p>		<p>Homework each week to monitor the progress.</p> <p>45 Marks of exam style questions in the final week of each term. Full topic/progress list available on RAG worksheet</p>	<p>AO1 – Recall and use knowledge of the prescribed content</p> <p>AO2-Select and apply mathematical methods in a range of contexts.</p> <p>AO3- Interpret and analyse problems and generate strategies to solve them</p>
5	Algebra: introduction to quadratics and rearranging formulae	<p>Maths genie website.</p> <p>Corbett maths.</p> <p>Maths box.</p> <p>Century tech.</p> <p>Collins AQA GCSE .maths.</p> <p>Student book.</p> <p>Century Tech extra resources</p>	<p>Simplify and manipulate algebraic expressions by:</p> <p>expanding products of two binomials</p> <p>factorising quadratic expressions of the form $x^2 + bx + c$ including the difference of two squares</p>		<p>Homework each week to monitor the progress.</p> <p>45 Marks of exam style questions in the final week of each term. Full topic/progress list available on RAG worksheet</p>	<p>AO1 – Recall and use knowledge of the prescribed content</p> <p>AO2-Select and apply mathematical methods in a range of contexts.</p>

		Oak National academy	simplifying expressions involving sums, products and powers, including the laws of indices Understand and use standard mathematical formulae Rearrange formulae to change the subject			AO3- Interpret and analyse problems and generate strategies to solve them
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Term 3 topics	Taught curriculum (teacher Led)	Learned curriculum (student Led)	Key skills demonstrated	Suggested wider activities including extra-curricular opportunities	Summative assessment Title/type	Assessment criteria

1	Algebra: quadratics, rearranging formulae and identities	<p>Maths genie website. Corbett maths. Maths box. Century tech. Collins AQA GCSE .maths. Student book. Century Tech extra resources Oak National academy</p>	<p>Simplify and manipulate algebraic expressions (including those involving surds) by: expanding products of two or more binomials factorising quadratic expressions of the form $x^2 + bx + c$ including the difference of two squares factorising quadratic expressions of the form $ax^2 + bx + c$ simplifying expressions involving sums, products and powers, including the laws of indices Understand and use standard mathematical formulae Rearrange formulae to change the subject Know the difference between an equation and an identity Argue mathematically to show algebraic expressions are equivalent, and use algebra to support and construct arguments and proofs</p>		<p>Homework each week to monitor the progress. 45 Marks of exam style questions in the final week of each term. Full topic/progress list available on RAG worksheet</p>	<p>AO1 – Recall and use knowledge of the prescribed content AO2-Select and apply mathematical methods in a range of contexts. AO3- Interpret and analyse problems and generate strategies to solve them</p>
2	Linear and quadratic equations and their graphs	<p>Maths genie website. Corbett maths. Maths box. Century tech. Collins AQA GCSE .maths. Student book. Century Tech extra resources Oak National academy</p>	<p>Solve linear equations in one unknown algebraically including those with the unknown on both sides of the equation Find approximate solutions using a graph Solve quadratic equations algebraically by factorising Find approximate solutions using a graph Translate simple situations or procedures into</p>		<p>Homework each week to monitor the progress. 45 Marks of exam style questions in the final week of each term. Full topic/progress list available on RAG worksheet</p>	<p>AO1 – Recall and use knowledge of the prescribed content AO2-Select and apply mathematical methods in a range of contexts. AO3- Interpret and analyse problems and generate strategies to solve them</p>

			algebraic expressions or formulae; derive an equation and the solve the equation and interpret the solution			
3	Simultaneous equations	<p>Maths genie website. Corbett maths. Maths box. Century tech. Collins AQA GCSE .maths. Student book. Century Tech extra resources Oak National academy</p>	<p>Solve two simultaneous equations in two variables (linear / linear or quadratic/linear) algebraically Find approximate solutions using a graph including the approximate solution of a quadratic equation by drawing a straight line to intersect with another quadratic equation Translate simple situations or procedures into algebraic expressions or formulae; Derive two simultaneous equations Solve the equations and interpret the solution</p>		<p>Homework each week to monitor the progress. 45 Marks of exam style questions in the final week of each term. Full topic/progress list available on RAG worksheet</p>	<p>AO1 – Recall and use knowledge of the prescribed content AO2-Select and apply mathematical methods in a range of contexts. AO3- Interpret and analyse problems and generate strategies to solve them</p>
4	Sketching graphs	<p>Maths genie website. Corbett maths. Maths box. Century tech. Collins AQA GCSE .maths. Student book. Century Tech extra resources Oak National academy</p>	<p>Recognise, sketch and interpret graphs of linear functions, quadratic functions, simple cubic functions and the reciprocal function $y= 1/x$ with $x \neq 0$ (Including using the symmetry of functions)</p>		<p>Homework each week to monitor the progress. 45 Marks of exam style questions in the final week of each term. Full topic/progress list available on RAG worksheet</p>	<p>AO1 – Recall and use knowledge of the prescribed content AO2-Select and apply mathematical methods in a range of contexts. AO3- Interpret and analyse problems and generate strategies to solve them</p>
5	Geometry and measures recap	<p>Maths genie website. Corbett maths. Maths box. Century tech. Collins AQA GCSE .maths. Student book. Century Tech extra resources Oak National academy</p>	<p>Solve geometrical problems on co-ordinate axes Identify, describe and construct congruent and similar shapes, including on co-ordinate axes, by considering rotation, reflection, translation and enlargement (including fractional and negative scale factors)</p>		<p>Homework each week to monitor the progress. 45 Marks of exam style questions in the final week of each term. Full topic/progress list available on RAG worksheet</p>	<p>AO1 – Recall and use knowledge of the prescribed content AO2-Select and apply mathematical methods in a range of contexts. AO3- Interpret and analyse problems and generate strategies to solve them</p>

			<p>Describe the changes and invariance achieved by combinations of rotations, reflections and translations</p> <p>Find the surface area of pyramids and composite solids</p> <p>Calculate surface area of spheres, cones and composite solids</p> <p>Calculate the volume of spheres, pyramids, cones and composite solids</p> <p>Calculate arc lengths, angles and areas of sectors of circles</p>			
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Curriculum Assessment Map

Subject: Maths

Year 11 Foundation	Intent		Implementation		Impact	
Half term1 topics	Taught curriculum (teacher Led)	Learned curriculum (student Led)	Key skills demonstrated	Suggested wider activities including extra-curricular opportunities	Summative assessment Title/type	Assessment criteria
1	Volume	<p>Maths genie website. Cobbett maths. Maths box. Century tech. Collins AQA GCSE .maths. Student book. Century Tech extra resources Oak National academy</p>	<p>Compare lengths, areas and volumes using ratio notation: Scale factors: <u>Make links to similarity.</u></p> <p>Know and apply the formula to calculate the volume of cuboids and other right prisms (including cylinders).</p> <p>Calculate the volume of spheres,</p>	<p>Maths club Puzzles Maths in real life Trip Wider applications of maths</p>	<p>Homework past paper for two weeks.</p> <p>Use of Century tech for homework and to monitor progress. Students self-evaluation through RAG</p> <p>Mock exam at the end of the term.</p>	<p>AO1 – Recall and use knowledge of the prescribed content AO2-Select and apply mathematical methods in a range of contexts. AO3- Interpret and analyse problems and generate strategies to solve them</p>

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			<p>pyramids, cones and composite solids.</p> <p><u>including frustums</u></p> <p><u>Calculate exactly with multiples of 'pi'</u></p>			
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2	<p>Algebra: Quadratics rearranging the formulae and identities</p>	<p>Maths genie website. Cobbett maths. Maths box. Century tech. Collins AQA GCSE maths Student book. Oak National academy</p>	<p>Simplify and manipulate algebraic expressions <u>(including those involving surds)</u> by: <u>expanding products of two or more binomials</u>: <u>factorising quadratic expressions of the form $ax^2 + bx + c$</u> including the <u>difference of two squares</u>. Factorising quadratic expressions of the form $ax^2 + bx + c$ simplifying expressions</p>	<p>Maths club Puzzles Maths in real life Trip Wider applications of maths</p>	<p>Homework past paper for two weeks. Use of Century tech for homework and to monitor progress. Students self evaluation through RAG Mock exam at the end of the term.</p>	<p>AO1 – Recall and use knowledge of the prescribed content AO2-Select and apply mathematical methods in a range of contexts. AO3- Interpret and analyse problems and generate strategies to solve them</p>
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			involving sums, products and powers, including the laws of indices			
3	Algebra: Quadratics rearranging the formulae and identities	<p>Maths genie website. Cobbett maths. Maths box. Century tech. Collins AQA GCSE maths Student book. Oak National academy</p>	<p>Understand and use standard mathematical formulae.</p> <p>including use of formulae from other subjects in words and using symbols.</p> <p>Rearrange formulae to change the subject.</p>	<p>Maths club Puzzles Maths in real life Trip Wider applications of maths</p>	<p>Homework past paper for two weeks.</p> <p>Use of Century tech for homework and to monitor progress. Students self evaluation through RAG</p> <p>Mock exam at the end of the term.</p>	<p>AO1 – Recall and use knowledge of the prescribed content AO2-Select and apply mathematical methods in a range of contexts. AO3- Interpret and analyse problems and generate strategies to solve them</p>

			<p><u>Know the difference between an equation and an identity</u></p> <p><u>Argue mathematically to show algebraic expressions are equivalent, and use algebra to support and construct arguments and proofs</u></p> <p>Where appropriate, interpret simple expressions as functions with</p>			
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			<p>inputs and outputs</p> <p>Interpret the reverse process as the 'inverse function'</p> <p>Interpret the succession of two functions as a composite function'</p> <p>'understand and use function notation: $f(x)$, $fg(x)$, $f^{-1}(x)$ is expected at higher tier</p>			
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4	Scatter Graph	<p>Maths genie website. Cobbett maths. Maths box. Century tech. Collins AQA GCSE maths Student book. Oak National academy</p>	<p>Use and interpret scatter graphs of bivariate data</p> <p>Recognise correlation <u>and know that it does not indicate causation</u></p> <p><u>Draw estimated lines of best fit</u> <u>.Make predictions</u> <u>Interpolate and extrapolate</u> <u>apparent trends</u> <u>whilst knowing the</u></p>		<p>Homework past paper for two weeks.</p> <p>Use of Century tech for homework and to monitor progress. Students self evaluation through RAG</p> <p>Mock exam at the end of the term.</p>	<p>AO1 – Recall and use knowledge of the prescribed content AO2-Select and apply mathematical methods in a range of contexts. AO3- Interpret and analyse problems and generate strategies to solve them</p>

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			<p><u>dangers of doing so</u></p> <p>know and understand the terms positive correlation, negative correlation, no correlation, weak correlation and strong correlation</p>			
5	Numerical Methods	<p>Maths genie website. Cobbett maths. Maths box. Century tech. Collins AQA GCSE maths Student book. Oak National academy</p>	<p>Find approximate solutions to equations numerically using iteration</p>		<p>Homework past paper for two weeks.</p> <p>Use of Century tech for homework and to monitor progress. Students self evaluation through RAG</p>	<p>AO1 – Recall and use knowledge of the prescribed content AO2-Select and apply mathematical methods in a range of contexts.</p>

					Mock exam at the end of the term.	AO3- Interpret and analyse problems and generate strategies to solve them
6	Holiday					
7	equation of a circle	<p>Maths genie website. Cobbett maths. Maths box. Century tech. Collins AQA GCSE maths Student book. Oak National academy</p>	<p>Recognise and use the equation of a circle with centre at the origin.</p> <p>Find the equation of a tangent to a circle at a given point.</p>		<p>Homework past paper for two weeks.</p> <p>Use of Century tech for homework and to monitor progress. Students self evaluation through RAG</p> <p>Mock exam at the end of the term.</p>	<p>AO1 – Recall and use knowledge of the prescribed content</p> <p>AO2-Select and apply mathematical methods in a range of contexts.</p> <p>AO3- Interpret and analyse problems and generate strategies to solve them</p>

8	Further equations and graphs		<p>Solve linear equations in one unknown algebraically <u>including those with the unknown on both sides of the equation</u></p> <p>Find approximate solutions using a graph</p> <p><u>Solve quadratic equations (including those that require rearrangement) algebraically by factorising, by</u></p>		<p>Homework past paper for two weeks.</p> <p>Use of Century tech for homework and to monitor progress. Students self evaluation through RAG</p> <p>Mock exam at the end of the term.</p>	

			<p>completing the square and by using the quadratic formula</p> <p><u>Find approximate solutions using a graph</u></p> <p><u>Recognise, sketch and interpret graphs of linear and quadratic functions</u></p>			
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9	Further equations and graphs		<p><u>Identify and interpret roots, intercepts and turning points of quadratic functions graphically; deduce roots algebraically and turning points by completing the square.</u></p> <p><u>including the symmetrical property of a quadratic</u></p> <p><u>Translate simple situations or procedures into algebraic</u></p>		<p>Homework past paper for two weeks.</p> <p>Use of Century tech for homework and to monitor progress. Students self evaluation through RAG</p> <p>Mock exam at the end of the term.</p>	
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			<p><u>expressions or formulae</u></p> <p><u>derive an equation, solve the equation and interpret the solution</u></p> <p><u>including solution of geometrical problems and problems set in context</u></p>			
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Curriculum Assessment Map

Subject: Maths

Year 11Higher	Intent		Implementation		Impact	
Half term2 topics	Taught curriculum (teacher Led)	Learned curriculum (student Led)	Key skills demonstrated	Suggested wider activities including extra-curricular opportunities	Summative assessment Title/type	Assessment criteria
10.	Simultaneous equations	Maths genie website. Cobbett maths. Maths box. Century tech. Collins AQA GCSE .maths. Student book.	<u>Solve two simultaneous equations in two variables (linear / linear or linear/quadratic) algebraically</u> <u>Find approximate solutions using a graph.</u>		Homework past paper for two weeks. Use of Century tech for homework and to monitor progress. Students self evaluation through RAG Mock exam at the end of the term.	AO1 – Recall and use knowledge of the prescribed content AO2-Select and apply mathematical methods in a range of contexts. AO3- Interpret and analyse problems and generate strategies to solve them

11	Simultaneous equations	<p>Maths genie website. Cobbett maths. Maths box. Century tech. Collins AQA GCSE maths Student book</p>	<p><u>Translate simple situations or procedures into algebraic expressions or formulae</u></p> <p><u>Derive two simultaneous equations.</u></p> <p><u>Solve the equations and interpret the solution</u></p> <p><u>including the solution of geometrical</u></p>		<p>Homework past paper for two weeks.</p> <p>Use of Century tech for homework and to monitor progress. Students self evaluation through RAG</p> <p>Mock exam at the end of the term.</p>	<p>AO1 – Recall and use knowledge of the prescribed content</p> <p>AO2-Select and apply mathematical methods in a range of contexts.</p> <p>AO3- Interpret and analyse problems and generate strategies to solve them</p>

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			<u>problems and problems set in context</u>			
12	Mock Revision	<p>Maths genie website. Cobbett maths. Maths box. Century tech. Collins AQA GCSE maths Student book.</p>			<p>Homework past paper for two weeks.</p> <p>Use of Century tech for homework and to monitor progress. Students self evaluation through RAG</p> <p>Mock exam at the end of the term.</p>	<p>AO1 – Recall and use knowledge of the prescribed content</p> <p>AO2-Select and apply mathematical methods in a range of contexts.</p> <p>AO3- Interpret and analyse problems and generate strategies to solve them</p>

13	Mock Exam and then Christmas holiday					
14	Sketching graph	<p>Maths genie website. Cobbett maths. Maths box. Century tech. Collins AQA GCSE maths Student book.</p>	<p>Recognise, sketch and interpret graphs of linear functions, quadratic functions, <u>simple cubic functions</u> and the <u>reciprocal function</u> $y = \frac{1}{x}$ with $x \neq 0$, exponential functions $y = kx$ for positive values of k, and</p>		<p>Homework past paper for two weeks.</p> <p>Use of Century tech for homework and to monitor progress. Students self evaluation through RAG</p> <p>Mock exam at the end of the term.</p>	<p>AO1 – Recall and use knowledge of the prescribed content AO2-Select and apply mathematical methods in a range of contexts. AO3- Interpret and analyse problems and generate strategies to solve them</p>

			<p>the trigonometric functions (with arguments in degrees)</p> <p>$y = \sin x, y = \cos x$ and $y = \tan x$</p> <p>for angles of any size</p>			
15	Direct and inverse proportion	<p>Maths genie website. Cobbett maths. Maths box. Century tech. Collins AQA GCSE maths Student book.</p>	<p>Solve problems involving direct and inverse proportion, including graphical and algebraic representations.</p> <p><u>Understand that x is inversely proportional to y is equivalent to x</u></p>		<p>Homework past paper for two weeks.</p> <p>Use of Century tech for homework and to monitor progress. Students self evaluation through RAG</p> <p>Mock exam at the end of the term.</p>	<p>AO1 – Recall and use knowledge of the prescribed content AO2-Select and apply mathematical methods in a range of contexts. AO3- Interpret and analyse problems and generate strategies to solve them</p>

			<p><u>is proportional to</u></p> $\frac{1}{y}$ <p><u>Construct and interpret equations that describe direct and inverse proportion</u></p> <p><u>Recognise and interpret graphs that illustrate direct and inverse proportion</u></p>			
16	Inequalities	<p>Maths genie website. Cobbett maths. Maths box. Century tech.</p>	<p><u>Solve linear inequalities in one or two variables and quadratic</u></p>		<p>Homework past paper for two weeks.</p> <p>Use of Century tech for</p>	<p>AO1 – Recall and use knowledge of the prescribed content</p> <p>AO2-Select and apply</p>

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		<p>Collins AQA GCSE maths Student book.</p>	<p>inequalities in one variable.</p> <p>know the conventions of an open circle on a number line for a strict inequality and a closed circle for an included boundary.</p> <p><u>Represent the solution set on a number line, using set notation and on a graph</u></p> <p>in graphical work the convention</p>		<p>homework and to monitor progress. Students self evaluation through RAG</p> <p>Mock exam at the end of the term.</p>	<p>mathematical methods in a range of contexts. AO3- Interpret and analyse problems and generate strategies to solve them</p>
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			of a dashed line for strict inequalities and a solid line for an included inequality will be required			
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	Intent		Implementation		Impact	
Half term3 topics	Taught curriculum (teacher Led)	Learned curriculum (student Led)	Key skills demonstrated	Suggested wider activities including extra-curricular opportunities	Summative assessment Title/type	Assessment criteria
17		Maths genie website. Cobbett maths. Maths box. Century tech. Collins AQA GCSE .maths. Student book.	<u>Know the formula for Pythagoras' Theorem</u> $a^2+b^2=c^2$		Homework past paper for two weeks. Use of Century tech for homework and	AO1 – Recall and use knowledge of the prescribed content AO2-Select and apply mathematical

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		<p>Century Tech extra resources</p>	<p><u>Apply it to find angles and lengths in right angled triangles and, where possible, general triangles in two and three dimensional figures.</u></p> <p><u>Know and use the trigonometric ratios</u></p> $\cos \theta = \frac{\textit{adjacent}}{\textit{hypotenuse}} \textit{ and}$ $\sin \theta = \frac{\textit{opposite}}{\textit{hypotenuse}}$		<p>to monitor progress. Students self evaluation through RAG</p> <p>Mock exam at the end of the term.</p>	<p>methods in a range of contexts. AO3- Interpret and analyse problems and generate strategies to solve them</p>
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			$\tan \theta = \frac{\textit{opposite}}{\textit{adjacent}}$			
15		<p>Maths genie website. Cobbett maths. Maths box. Century tech. Collins AQA GCSE maths Student book</p>	<p><u>Know the exact values of</u></p> <p>$\sin \theta$ and $\cos \theta =$ <u>of 0°, 30°, 45°, 60° and 90°</u></p> <p><u>Know the exact value of</u></p>		<p>Homework past paper for two weeks.</p> <p>Use of Century tech for homework and to monitor progress. Students self evaluation through RAG</p> <p>Mock exam at the end of the term.</p>	<p>AO1 – Recall and use knowledge of the prescribed content AO2-Select and apply mathematical methods in a range of contexts. AO3- Interpret and analyse problems and generate strategies to solve them</p>

			<u>$\tan \theta$ for $\theta = 0^\circ$, 30°, 45° and 60°</u>			
16	Pythagoras theorem and basic trigonometry		<u>Apply angle facts, triangle congruence, similarity and properties of quadrilaterals to conjecture and derive results</u>			

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			<p><u>about angles and sides including Pythagoras' Theorem and use known results to obtain simple proofs.</u></p> <p>Compare lengths using ratio notation; <u>make links to trigonometric ratios</u></p>			
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<p>half-term</p>					<p>Homework past paper for two weeks.</p> <p>Use of Century tech for homework and to monitor progress. Students self evaluation through RAG</p> <p>Mock exam at the end of the term.</p>	
<p>17</p>	<p>Growth and decay</p>	<p>Maths genie website. Cobbett maths. Maths box. Century tech. Collins AQA GCSE maths Student book.</p>	<p><u>Set up, solve and interpret the answers in growth and decay problems, including compound interest and work with</u></p>		<p>Homework past paper for two weeks.</p> <p>Use of Century tech for homework and to monitor progress. Students self evaluation through RAG</p>	<p>AO1 – Recall and use knowledge of the prescribed content AO2-Select and apply mathematical methods in a range of contexts. AO3- Interpret and analyse problems and</p>

			general iterative processes		Mock exam at the end of the term.	generate strategies to solve them
18	Vectors	Maths genie website. Cobbett maths. Maths box. Century tech. Collins AQA GCSE maths Student book.	<u>Apply addition and subtraction of vectors.</u> <u>multiplication of vectors by a scalar, and</u> <u>diagrammatic and column representation of vectors</u>			

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19	Vectors	Maths genie website. Cobbett maths. Maths box. Century tech. Collins AQA GCSE maths Student book.	Use vectors to construct geometric arguments and proofs		Homework past paper for two weeks. Use of Century tech for homework and to monitor progress. Students self evaluation through RAG Mock exam at the end of the term.	
20	Transforming functions		Sketch translations and reflections of a given function			
21	Cosine and sine rule	Maths genie website. Cobbett maths. Maths box.	Know and apply the Sine rule		Homework past paper for two weeks.	

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		<p>Century tech. Collins AQA GCSE maths Student book</p>	$\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$ <p>and Cosine rule</p> $a^2 = b^2 + c^2 - 2bc \cos A$ <p>to find unknown lengths and angles</p>		<p>Use of Century tech for homework and to monitor progress. Students self evaluation through RAG</p> <p>Mock exam at the end of the term.</p>	
22	Cosine and sine rule	<p>Maths genie website. Cobbett maths. Maths box. Century tech. Collins AQA GCSE maths Student book</p>	<p>Know and apply</p> $= \frac{1}{2} abs \sin C$ <p>to calculate the area, sides or</p>			

			angles of any triangle			
23	Circle theorems	<p>Maths genie website. Cobbett maths. Maths box. Century tech. Collins AQA GCSE maths Student book</p>	<p>Apply and prove the standard circle theorems concerning angles, radii, tangents and chords and use them to prove related results.</p> <p>including</p> <p>angle at centre is equal to twice angle at circumference;</p>		<p>Homework past paper for two weeks.</p> <p>Use of Century tech for homework and to monitor progress. Students self evaluation through RAG</p> <p>Mock exam at the end of the term.</p>	

			<p>angle in a semi-circle is 90°;</p> <p>angles in the same segment are equal;</p> <p>opposite angles in a cyclic quadrilateral sum to 180°;</p> <p>tangent at any point on a circle is perpendicular to the radius at that point.</p> <p>tangents from an external point are equal in length;</p> <p>the perpendicular from the centre to a chord</p>			
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			<p>bisects the chord;</p> <p>alternate segment theorem</p>			
Holiday	Holiday					
25	Gradient and rate of change	<p>Maths genie website.</p> <p>Cobbett maths.</p> <p>Maths box.</p> <p>Century tech.</p> <p>Collins AQA GCSE maths</p> <p>Student book</p>	<p>Interpret the gradient at a point on a curve as the instantaneous rate of change</p> <p>Apply the concepts of average and instantaneous</p>		<p>Homework past paper for two weeks.</p> <p>Use of Century tech for homework and to monitor progress.</p> <p>Students self evaluation through RAG</p>	

			<p>rates of change (gradients of chords and tangents) in numerical, algebraic and graphical contexts.</p>		<p>Mock exam at the end of the term.</p>	
22	<p>Gradient and rate of change</p>	<p>Maths genie website. Cobbett maths. Maths box. Century tech. Collins AQA GCSE maths Student book</p>	<p><u>Interpret the gradient of a straight-line graph as a rate of change</u></p>			
23	<p>Pre-calculus and area under the curve</p>	<p>Maths genie website. Cobbett maths.</p>	<p>Calculate or estimate</p>			

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		<p>Maths box. Century tech. Collins AQA GCSE maths Student book</p>	<p>gradients of graphs and areas under graphs (including quadratic and other non-linear graphs)</p> <p>Interpret the results in cases such as distance-time graphs, velocity-time graphs and graphs in financial contexts</p>			
	<p>Algebraic fractions</p>	<p>Maths genie website. Cobbett maths.</p>	<p>Simplify and manipulate</p>			

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		Maths box. Century tech. Collins AQA GCSE maths Student book	algebraic expressions involving algebraic fractions.			
	Revision					
	Revision					
	Revision					
	Revision June examination					
	Revision and June examination					



year 11F Curriculum Assessment

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year 11F Curriculum Assessment

Curriculum Assessment Map

Subject: Maths

Year 11 Higher	Intent		Implementation		Impact	
Half term1 topics	Taught curriculum (teacher Led)	Learned curriculum (student Led)	Key skills demonstrated	Suggested wider activities including extra-curricular opportunities	Summative assessment Title/type	Assessment criteria
1	Algebraic fractions	Maths genie website. Cobbett maths. Maths box. Century tech. Collins AQA GCSE .maths. Student book. Century Tech extra resources Oak National academy	Simplify and manipulate algebraic expressions involving algebraic fractions	Maths club Puzzles Maths in real life Trip Wider applications of maths	Homework past paper for two weeks. Use of Century tech for homework and to monitor progress. Students self-evaluation through RAG Mock exam at the end of the term.	AO1 – Recall and use knowledge of the prescribed content AO2-Select and apply mathematical methods in a range of contexts. AO3- Interpret and analyse problems and generate strategies to solve them

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2	Algebraic fractions	<p>Maths genie website. Cobbett maths. Maths box. Century tech. Collins AQA GCSE maths Student book. Oak National academy</p>	<p>Simplify and manipulate algebraic expressions involving algebraic fractions</p>	<p>Maths club Puzzles Maths in real life Trip Wider applications of maths</p>	<p>Homework past paper for two weeks.</p> <p>Use of Century tech for homework and to monitor progress. Students self evaluation through RAG</p> <p>Mock exam at the end of the term.</p>	<p>AO1 – Recall and use knowledge of the prescribed content AO2-Select and apply mathematical methods in a range of contexts. AO3- Interpret and analyse problems and generate strategies to solve them</p>
3	Trigonometry -Non right angle triangles- Sine and cosine rule	<p>Maths genie website. Cobbett maths. Maths box. Century tech. Collins AQA GCSE maths Student book. Oak National academy</p>	<p><u>Know the formula for Pythagoras' Theorem</u> <u>`a^2+b^2=c^2`.</u></p> <p><u>Apply it to find length in right angled triangles and,</u> where possible, general</p>		<p>Homework past paper for two weeks.</p> <p>Use of Century tech for homework and to monitor progress. Students self evaluation through RAG</p>	<p>AO1 – Recall and use knowledge of the prescribed content AO2-Select and apply mathematical methods in a range of contexts. AO3- Interpret and analyse problems and generate</p>

			<p>triangles in two and three dimensional figures</p> <ul style="list-style-type: none"> • <u>Know and use the trigonometric ratios</u> $\sin \theta = \frac{\textit{opposite}}{\textit{hypotenuse}}$ $\tan \theta = \frac{\textit{opposite}}{\textit{adjacent}}$ <p><u>Apply them to find angles and lengths in right-angled triangles and, where possible, general triangles in two and three dimensional figures</u></p>		<p>Mock exam at the end of the term.</p>	<p>strategies to solve them</p>
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year 11H Curriculum Assessment

4	<p>Trigonometry -Non right angle triangles- Sine and cosine rule</p>	<p>Maths genie website. Cobbett maths. Maths box. Century tech. Collins AQA GCSE maths Student book. Oak National academy</p>	G21	<ul style="list-style-type: none"> • <u>Know the exact values of $\sin \theta$ and $\cos \theta$ for $\theta = 0^\circ, 30^\circ, 45^\circ, 60^\circ$ and 90°</u> • <u>Know the exact value of $\tan \theta$ for $\theta = 0^\circ, 30^\circ, 45^\circ$ and 60°</u> 	<p>Homework past paper for two weeks.</p> <p>Use of Century tech for homework and to monitor progress. Students self evaluation through RAG</p> <p>Mock exam at the end of the term.</p>	<p>AO1 – Recall and use knowledge of the prescribed content AO2-Select and apply mathematical methods in a range of contexts. AO3- Interpret and analyse problems and generate strategies to solve them</p>
5	<p>Growth and decay</p>	<p>Maths genie website. Cobbett maths. Maths box. Century tech.</p>	Set up, solve and interpret the answers in growth and decay problems, including compound interest and		<p>Homework past paper for two weeks.</p> <p>Use of Century tech for homework and</p>	<p>AO1 – Recall and use knowledge of the prescribed content AO2-Select and apply mathematical</p>

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		Collins AQA GCSE maths Student book. Oak National academy	work with general iterative processes		to monitor progress. Students self evaluation through RAG Mock exam at the end of the term.	methods in a range of contexts. AO3- Interpret and analyse problems and generate strategies to solve them
6	Growth and Decay					
7	Equation of a Circle	Maths genie website. Cobbett maths. Maths box. Century tech. Collins AQA GCSE maths Student book. Oak National academy	Recognise and use the equation of a circle with centre at the origin Find the equation of a tangent to a circle at a given point.		Homework past paper for two weeks. Use of Century tech for homework and to monitor progress. Students self evaluation through RAG Mock exam at the end of the term.	AO1 – Recall and use knowledge of the prescribed content AO2-Select and apply mathematical methods in a range of contexts. AO3- Interpret and analyse problems and generate strategies to solve them

	half term holiday					
8	Further Equations and graphs		<p>Solve linear equations in one unknown algebraically including those with the unknown on both sides of the equation.</p> <p>Find approximate solutions using a graph.</p> <ul style="list-style-type: none"> • Solve quadratic equations (including those that require rearrangement) algebraically by factorising, by completing the square and by using the quadratic formula 		<p>Homework past paper for two weeks.</p> <p>Use of Century tech for homework and to monitor progress. Students self evaluation through RAG</p> <p>Mock exam at the end of the term.</p>	

year 11H Curriculum Assessment

			<ul style="list-style-type: none"> Find approximate solutions using a graph 			
9	Further Equations and graphs		<p>Recognise, sketch and interpret graphs of linear and quadratic functions.</p> <p>Identify and interpret roots, intercepts and turning points of quadratic functions graphically; deduce roots algebraically and turning</p>		<p>Homework past paper for two weeks.</p> <p>Use of Century tech for homework and to monitor progress. Students self evaluation through RAG</p>	

			<p>points by completing the square</p> <p>Translate simple situations or procedures into algebraic expressions or formulae.</p> <p>Derive an equation, solve the equation and interpret the solution</p>		<p>Mock exam at the end of the term.</p>	
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Curriculum Assessment Map

Subject: Maths

Year 11Higher	Intent		Implementation		Impact	
Half term2 topics	Taught curriculum (teacher Led)	Learned curriculum (student Led)	Key skills demonstrated	Suggested wider activities including extra-curricular opportunities	Summative assessment Title/type	Assessment criteria
10.	Revision Mock	Maths genie website. Cobbett maths. Maths box. Century tech. Collins AQA GCSE .maths. Student book.			Homework past paper for two weeks. Use of Century tech for homework and to monitor progress. Students self evaluation through RAG Mock exam at the end of the term.	AO1 – Recall and use knowledge of the prescribed content AO2-Select and apply mathematical methods in a range of contexts. AO3- Interpret and analyse problems and generate strategies to solve them

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11	Revision Mock	<p>Maths genie website. Cobbett maths. Maths box. Century tech. Collins AQA GCSE maths Student book</p>			<p>Homework past paper for two weeks.</p> <p>Use of Century tech for homework and to monitor progress. Students self evaluation through RAG</p> <p>Mock exam at the end of the term.</p>	<p>AO1 – Recall and use knowledge of the prescribed content</p> <p>AO2-Select and apply mathematical methods in a range of contexts.</p> <p>AO3- Interpret and analyse problems and generate strategies to solve them</p>
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12	Mock Revision	Maths genie website. Cobbett maths. Maths box. Century tech. Collins AQA GCSE maths Student book.			Homework past paper for two weeks. Use of Century tech for homework and to monitor progress. Students self evaluation through RAG Mock exam at the end of the term.	AO1 – Recall and use knowledge of the prescribed content AO2-Select and apply mathematical methods in a range of contexts. AO3- Interpret and analyse problems and generate strategies to solve them
13	Mock Exam and then Christmas holiday					
14		Maths genie website. Cobbett maths. Maths box. Century tech.	Recognise, sketch and interpret graphs of linear		Homework past paper for two weeks. Use of Century tech for	AO1 – Recall and use knowledge of the prescribed content AO2-Select and apply

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		<p>Collins AQA GCSE maths Student book.</p>	<p>functions, quadratic functions, <u>simple cubic functions</u> and the <u>reciprocal</u> function $y = \frac{1}{x}$ with $x \neq 0$, exponential functions $y = kx$ for positive values of k, and the trigonometric functions (with arguments in degrees) $y = \sin x, y = \cos x$ and $y = \tan x$ for angles of any size</p>		<p>homework and to monitor progress. Students self evaluation through RAG Mock exam at the end of the term.</p>	<p>mathematical methods in a range of contexts. AO3- Interpret and analyse problems and generate strategies to solve them</p>
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15		<p>Maths genie website. Cobbett maths. Maths box. Century tech. Collins AQA GCSE maths Student book.</p>			<p>Homework past paper for two weeks.</p> <p>Use of Century tech for homework and to monitor progress. Students self evaluation through RAG</p> <p>Mock exam at the end of the term.</p>	<p>AO1 – Recall and use knowledge of the prescribed content AO2-Select and apply mathematical methods in a range of contexts. AO3- Interpret and analyse problems and generate strategies to solve them</p>
16		<p>Maths genie website. Cobbett maths. Maths box. Century tech. Collins AQA GCSE maths Student book.</p>			<p>Homework past paper for two weeks.</p> <p>Use of Century tech for homework and to monitor progress.</p>	<p>AO1 – Recall and use knowledge of the prescribed content AO2-Select and apply mathematical methods in a range of contexts.</p>

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					Students self evaluation through RAG Mock exam at the end of the term.	A03- Interpret and analyse problems and generate strategies to solve them
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Half term3 topics	Intent		Implementation		Impact	
	Taught curriculum (teacher Led)	Learned curriculum (student Led)	Key skills demonstrated	Suggested wider activities including extra-curricular opportunities	Summative assessment Title/type	Assessment criteria
17		<p>Maths genie website. Cobbett maths. Maths box. Century tech. Collins AQA GCSE .maths. Student book. Century Tech extra ressources</p>	<p><u>Know the formula for Pythagoras' Theorem</u> $a^2+b^2=c^2$</p> <p><u>Apply it to find angles and lengths in right angled triangles and, where possible, general triangles in two and three dimensional figures.</u></p>		<p>Homework past paper for two weeks.</p> <p>Use of Century tech for homework and to monitor progress. Students self evaluation through RAG</p> <p>Mock exam at the end of the term.</p>	<p>AO1 – Recall and use knowledge of the prescribed content AO2-Select and apply mathematical methods in a range of contexts. AO3- Interpret and analyse problems and generate strategies to solve them</p>

			<p><u>Know and use the trigonometric ratios</u></p> $\cos \theta = \frac{\textit{adjacent}}{\textit{hypotenuse}} \textit{ and}$ $\sin \theta = \frac{\textit{opposite}}{\textit{hypotenuse}}$ $\tan \theta = \frac{\textit{opposite}}{\textit{adjacent}}$			
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<p>15</p>		<p>Maths genie website. Cobbett maths. Maths box. Century tech. Collins AQA GCSE maths Student book</p>	<p><u>Know the exact values of</u></p> <p>$\sin \theta$ and $\cos \theta =$ <u>of 0°, 30°, 45°, 60° and 90°</u></p> <p><u>Know the exact value of</u></p> <p>$\tan \theta$ for $\theta =$ <u>0°, 30°, 45° and 60°</u></p>		<p>Homework past paper for two weeks.</p> <p>Use of Century tech for homework and to monitor progress. Students self evaluation through RAG</p> <p>Mock exam at the end of the term.</p>	<p>AO1 – Recall and use knowledge of the prescribed content AO2-Select and apply mathematical methods in a range of contexts. AO3- Interpret and analyse problems and generate strategies to solve them</p>
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16	Pythagoras theorem and basic trigonometry		<p><u>Apply angle facts, triangle congruence, similarity and properties of quadrilaterals to conjecture and derive results about angles and sides including Pythagoras' Theorem and use known results to obtain simple proofs.</u></p> <p>Compare lengths using ratio notation; <u>make links to</u></p>			

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			<u>trigonometric ratios</u>			
half-term					<p>Homework past paper for two weeks.</p> <p>Use of Century tech for homework and to monitor progress. Students self evaluation through RAG</p> <p>Mock exam at the end of the term.</p>	
17	Growth and decay	<p>Maths genie website.</p> <p>Cobbett maths.</p> <p>Maths box.</p>	<p><u>Set up, solve and interpret the answers in growth</u></p>		<p>Homework past paper for two weeks.</p>	AO1 – Recall and use knowledge of

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		Century tech. Collins AQA GCSE maths Student book.	<u>and decay problems, including compound interest</u> and work with general iterative processes		Use of Century tech for homework and to monitor progress. Students self evaluation through RAG Mock exam at the end of the term.	the prescribed content AO2-Select and apply mathematical methods in a range of contexts. AO3- Interpret and analyse problems and generate strategies to solve them
18	Vectors	Maths genie website. Cobbett maths. Maths box. Century tech. Collins AQA GCSE maths Student book.	<u>Apply addition and subtraction of vectors.</u> <u>multiplication of vectors by a scalar, and diagrammatic and column representation of vectors</u>			

19	Vectors	<p>Maths genie website. Cobbett maths. Maths box. Century tech. Collins AQA GCSE maths Student book.</p>	Use vectors to construct geometric arguments and proofs		<p>Homework past paper for two weeks.</p> <p>Use of Century tech for homework and to monitor progress. Students self evaluation through RAG</p> <p>Mock exam at the end of the term.</p>	
20	Transforming functions		Sketch translations and			

			reflections of a given function			
21	Cosine and sine rule	<p>Maths genie website. Cobbett maths. Maths box. Century tech. Collins AQA GCSE maths Student book</p>	<p>Know and apply the Sine rule</p> $\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$ <p>and Cosine rule</p> $a^2 = b^2 + c^2 - 2bc \cos A$ <p>to find unknown lengths and angles</p>		<p>Homework past paper for two weeks.</p> <p>Use of Century tech for homework and to monitor progress. Students self evaluation through RAG</p> <p>Mock exam at the end of the term.</p>	

22	Cosine and sine rule	<p>Maths genie website. Cobbett maths. Maths box. Century tech. Collins AQA GCSE maths Student book</p>	<p>Know and apply $= \frac{1}{2} abs \sin C$ to calculate the area, sides or angles of any triangle</p>			
23	Circle theorems	<p>Maths genie website. Cobbett maths. Maths box. Century tech. Collins AQA GCSE maths Student book</p>	<p>Apply and prove the standard circle theorems concerning angles, radii, tangents and chords and use</p>		<p>Homework past paper for two weeks.</p> <p>Use of Century tech for homework and to monitor progress. Students self evaluation through RAG</p>	

			<p>them to prove related results.</p> <p>including</p> <p>angle at centre is equal to twice angle at circumference;</p> <p>angle in a semi-circle is 90°;</p> <p>angles in the same segment are equal;</p> <p>opposite angles in a cyclic quadrilateral sum to 180°;</p> <p>tangent at any point on a circle is perpendicular</p>		<p>Mock exam at the end of the term.</p>	
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			<p>to the radius at that point.</p> <p>tangents from an external point are equal in length;</p> <p>the perpendicular from the centre to a chord bisects the chord;</p> <p>alternate segment theorem</p>			
Holiday	Holiday					
25	Gradient and rate of change	<p>Maths genie website.</p> <p>Cobbett maths.</p>	Interpret the gradient at a		<p>Homework past paper for two weeks.</p>	

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		<p>Maths box. Century tech. Collins AQA GCSE maths Student book</p>	<p>point on a curve as the instantaneous rate of change</p> <p>Apply the concepts of average and instantaneous rates of change (gradients of chords and tangents) in numerical, algebraic and graphical contexts.</p>		<p>Use of Century tech for homework and to monitor progress. Students self evaluation through RAG</p> <p>Mock exam at the end of the term.</p>	
22	Gradient and rate of change	<p>Maths genie website. Cobbett maths.</p>	<p><u>Interpret the gradient of a</u></p>			

		<p>Maths box. Century tech. Collins AQA GCSE maths Student book</p>	<p><u>straight-line</u> <u>graph as a rate of</u> <u>change</u></p>			
23	<p>Pre-calculus and area under the curve</p>	<p>Maths genie website. Cobbett maths. Maths box. Century tech. Collins AQA GCSE maths Student book</p>	<p>Calculate or estimate gradients of graphs and areas under graphs (including quadratic and other non-linear graphs)</p> <p>Interpret the results in cases such as distance-time graphs, velocity-time</p>			

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			graphs and graphs in financial contexts			
	Algebraic fractions	<p>Maths genie website. Cobbett maths. Maths box. Century tech. Collins AQA GCSE maths Student book</p>	Simplify and manipulate algebraic expressions involving algebraic fractions.			
	Revision					
	Revision					

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	Revision					
	Revision June examination					
	Revision and June examination					



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