	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Theme/Big Idea	Understanding the World Through Mathematical Relationships: Exploring Space, Chance and Change	Visualising and Solving Mathematical Problems: Developing Precision, Reasoning and Analytical Thinking	Developing Mathematical Connections: Building Fluency, Reasoning and Spatial Understanding	Exploring Mathematical Relationships: Building Confidence in Reasoning, Representation and Problem-Solving	Consolidating Mathematical Understanding and Developing Examination Confidence Through Deliberate Practice	Consolidating Mathematical Understanding and Developing Examination Confidence Through Deliberate Practice
Content What are they learning? (including keywords)	<u>Unit 12:</u> **Right-angled triangles** Students will develop confidence in geometry by applying Pythagoras' Theorem and trigonometry to find lengths and angles, including in coordinate and real-world contexts. They will use exact trigonometric values, solve problems involving elevation and depression, and communicate answers with appropriate accuracy and mathematical reasoning. <u>Unit 13:</u> **Probability** Students will develop a secure understanding of probability by exploring chance, outcomes and uncertainty. They will calculate and compare theoretical and experimental probabilities, use tables, Venn and tree diagrams, and analyse independent	<u>Unit 15:</u> **Constructions, loci and bearings** Students will develop precision and spatial reasoning through geometry, constructions and scale drawing. They will use geometric tools accurately, interpret maps and bearings, solve loci problems, and represent 3D objects through plans and elevations, building confidence in applying mathematical skills to practical and real-world situations. <u>Unit 16:</u> **Quadratic equations and graphs** Students will develop a deeper understanding of quadratic algebra by expanding, factorising and solving quadratic expressions and equations. They will explore quadratic graphs, identify key features such as roots, intercepts	<u>Unit 18:</u> **Fractions, indices and standard form** Students will strengthen their number skills by working confidently with fractions, reciprocals, indices and standard form. They will perform calculations involving very large and very small numbers, apply index laws, and develop accuracy and fluency in solving complex mathematical problems across a range of contexts. <u>Unit 19:</u> **Congruence, similarity and vectors** Students will develop geometric reasoning by exploring congruence, similarity and scale factors, applying these concepts to solve problems involving angles, lengths, maps and bearings. They will also work with vectors to represent movement	<u>Unit 20:</u> **More algebra** Students will deepen their algebraic understanding by exploring equations, identities, formulae and graphs. They will solve simultaneous equations, interpret cubic and reciprocal graphs, work with inverse proportion, and use mathematical reasoning to justify solutions, developing confidence in analysing patterns and solving complex real-life problems.	<u>Revision</u>: **Class specific revision and exam practice based on previous examinations and QLA documents.** Students consolidate and extend their understanding of the content through structured practice of past examination questions under both timed and untimed conditions. They refine methods, improve accuracy and application, and develop effective examination techniques through the analysis of mark schemes, examiner reports and common misconceptions. Through regular exposure to examination-style questions, students also develop confidence in managing their time effectively, improving the speed, efficiency and accuracy with which they select and apply	<u>Revision</u>: **Class specific revision and exam practice based on previous examinations and QLA documents.** Activity will continue as in Term 5 until exams are complete.

	and dependent events, building confidence in logical reasoning, decision-making and interpreting real-world data. <u>Unit 14:</u> **Multiplicative reasoning** Students will learn to apply mathematics in practical and financial contexts, working with speed, density, pressure and percentage change. They will solve problems involving profit, compound interest, growth and decay, ratio and proportion, developing confidence in analysing real-world situations and making informed mathematical decisions. **Key vocabulary list in Y11 Foundation Appendix 1**	and turning points, and apply these ideas to solve problems, strengthening algebraic reasoning and analytical thinking. <u>Unit 17:</u> **Perimeter, area and volume II** Students will develop their understanding of circles and 3D shapes by calculating lengths, areas, surface areas and volumes using mathematical formulae. They will solve increasingly complex problems involving sectors, cylinders, cones and spheres, applying accuracy, reasoning and precision to real-world and mathematical contexts. **Key vocabulary list in Y11 Foundation Appendix 1**	and relationships, strengthening spatial awareness, mathematical communication and problem-solving skills. **Key vocabulary list in Y11 Foundation Appendix 1**	**Key vocabulary list in Y11 Foundation Appendix 1**	appropriate methods under examination conditions.	
Skills How are they learning it?	Apply mathematical thinking to recognise relationships between quantities, rates, probability, and geometric measures, making connections across different mathematical contexts. Use mathematical reasoning to justify solutions, interpret results, and evaluate outcomes involving	Apply mathematical thinking to recognise structure and connections between algebraic, geometric, and spatial concepts, including links between equations, graphs, and real-world measures. Use mathematical reasoning to justify geometric constructions, interpret quadratic graphs, and explain	Apply mathematical thinking to recognise structure and connections between number, algebra, and geometry, including links between scale factors, dimensions, and mathematical representations. Use mathematical reasoning to justify methods, explain relationships between	Apply mathematical thinking to recognise structure and patterns across algebra, including connections between simultaneous equations, cubic and reciprocal graphs, and inverse proportion. Use mathematical reasoning to justify solutions, interpret algebraic representations, and	Apply mathematical knowledge fluently and accurately across a wide range of examination-style questions. Develop effective strategies for selecting, applying and communicating appropriate mathematical methods. Use examiner feedback, mark schemes and	

	chance, measurement, growth, and change. Use representations such as diagrams, tables, Venn diagrams, tree diagrams, graphs, and coordinate models to visualise and communicate mathematical ideas clearly.	relationships between dimensions, shapes, and algebraic representations. Use representations such as scale drawings, plans and elevations, loci diagrams, coordinate graphs, and geometric models to visualise and communicate mathematical ideas clearly.	congruent and similar shapes, and interpret vector movements and geometric situations. Use representations such as standard form notation, vector diagrams, scale drawings, maps, and geometric models to communicate mathematical ideas clearly and effectively.	explain relationships within equations, graphs, and proportional situations. Use representations such as algebraic notation, graphs, tables, and equations to visualise, analyse, and communicate mathematical ideas clearly.	model solutions to improve accuracy and maximise marks. Build confidence and resilience through timed practice and reflection on performance. Evaluate and refine examination technique to improve efficiency, precision and problem-solving under pressure.	
Key Questions	**How** do Pythagoras' Theorem and trigonometry work together to find unknown lengths and angles in right-angled triangles, and **what** information is needed to apply them correctly? **Why** is it important to use exact trigonometric values and consider accuracy when solving problems involving coordinates, elevation, and depression, and **how** do these skills apply to real-world situations? **How** do tables, Venn diagrams, and tree diagrams help us calculate and represent probabilities, and **what** can they show about different possible outcomes? **Why** is it important to distinguish between	**How** do constructions, loci, and bearings help us represent and solve geometric problems, and **what** skills are needed to use geometric tools accurately? **Why** is it important to understand scale drawings, maps, plans, and elevations, and **how** do these representations help us apply mathematics to practical and real-world situations? **How** do expanding, factorising, and solving quadratic equations help us understand the behaviour of quadratic graphs, and **what** connections can be made between the algebraic and graphical representations? **Why** is it important to identify roots, intercepts,	**How** do fractions, reciprocals, indices, and standard form help us work efficiently with very large and very small numbers, and **what** strategies can be used to perform calculations accurately? **Why** is it important to understand and apply index laws when solving mathematical problems, and **how** do these laws improve fluency and accuracy across different mathematical contexts? **How** do congruence, similarity, and scale factors help us solve problems involving angles, lengths, maps, and bearings, and **what** relationships can be identified between the shapes being compared? **Why** are vectors useful for representing	**How** do equations, identities, formulae, and graphs help us represent and solve mathematical relationships, and **what** connections can be made between these different algebraic representations? **Why** is it important to use mathematical reasoning when solving simultaneous equations, interpreting cubic and reciprocal graphs, and working with inverse proportion, and **how** do these skills help us solve complex real-life problems?	**What** makes a mathematical solution successful, **why** do examiners award marks in particular ways, and **how** can this improve performance? **How** can past papers, mark schemes and examiner reports help identify strengths and areas for development? **Why** is examination technique important, and **how** can accuracy, communication and time management be improved?	

	independent and dependent events, and **how** does this affect the probability of events occurring in real-world situations? **How** do concepts such as speed, density, pressure, and percentage change help us analyse and solve practical and financial problems, and **what** mathematical methods are used to calculate them? **Why** is multiplicative reasoning important when working with profit, compound interest, growth and decay, ratio, and proportion, and **how** does it support informed decision-making in real-world situations?	and turning points on a quadratic graph, and **how** do these features help us solve mathematical and real-world problems? **How** do mathematical formulae help us calculate the perimeter, area, surface area, and volume of circles and 3D shapes, and **what** information is needed to use these formulae correctly? **Why** is it important to understand the properties of sectors, cylinders, cones, and spheres, and **how** do calculations involving these shapes help solve real-world and mathematical problems accurately?	movement and geometric relationships, and **how** do they strengthen spatial awareness and problem-solving in mathematical contexts?			
Assessment (specific assessed piece(s); milestone(s))	Unit 12 Learning Review. Unit 13 Learning Review. Unit 14 Learning Review. October Papers. QLA sheets provided from this.	Unit 15 Learning Review. Unit 16 Learning Review. Possibly Unit 17 Learning Review. December Examinations. QLA sheets provided from this.	Unit 18 Learning Review. Unit 19 Learning Review.	Unit 20 Learning Review. March Examinations. QLA sheets provided from this.	Final GCSE Examinations.	Final GCSE Examinations.