

Subject: Yr 9	Term one		Term two		Term three	
Key Knowledge and understanding	Algebra	Geometry	Number	Number & Geometry	Geometry	Number & Probability
	<ul style="list-style-type: none"> <li>Manipulating algebra</li> <li>Forming and Solving equations</li> <li>Proof</li> </ul>	<ul style="list-style-type: none"> <li>Area and Perimeter</li> <li>Surface area</li> <li>Volume</li> <li>Constructions and Congruency</li> </ul>	<ul style="list-style-type: none"> <li>Number Properties</li> <li>Indices</li> <li>Standard Form</li> <li>Non-Calculator Methods</li> </ul>	<ul style="list-style-type: none"> <li>Percentages</li> <li>Decimals</li> <li>Maths and Money</li> <li>Pythagoras</li> </ul>	<ul style="list-style-type: none"> <li>Angles</li> <li>Trigonometry</li> </ul>	<ul style="list-style-type: none"> <li>Fractions</li> <li>Probability</li> </ul>
Progression	Students review skills on manipulating terms and extend to new knowledge such as expanding triple brackets. Then apply what they have learnt to solving equations and forming them from various scenarios.	Students develop their knowledge of shapes and start to look at more complex shapes such as cylinders and cones. They also link back to the previous topic of solving problems using algebra to work backwards when a missing length is needed.	Students explore number properties and dealing with writing numbers in standard form. Review non-calculator methods and build on these to explore non-calculator skills.	Students explore converting percentages and decimals and the links between the different variables to find percentage increase/decrease, compound interest and reverse percentages	Students will continue to use formal angle notation and reasoning to solve angle problems. They will learn about SOHCAHTOA and build on their knowledge of Pythagoras and right-angled triangles.	Students will build on their knowledge of working with fractions, four operations and converting to percentages and decimals. They will learn about probability and different diagrams to display findings e.g tree diagrams
Challenge	Completing the square Using the quadratic formula Proof	More complex shapes e.g Frustums Applying algebra links to solve problems	Working in standard form to calculate questions in context e.g speed. Looking at bounds and how calculations alter.	Working backwards to find percentages after compound interest has been applied	Using formal geometric proofs, advanced trigonometry when you do not have a right-angled triangle by using the sine and cosine rules.	Algebraic Fractions Using algebra to solve complex problems
Skills	Expanding brackets Factorising Applying skills to questions in disguise e.g difference of two squares	Using a compass and protractor Using a calculator	Rules of indices Standard form notation Estimating	Pythagoras Using a calculator Decimals and Percentages	SOHCAHTOA Using a calculator Angle facts and notations	Set notation Addition, subtraction, multiplication and division of fractions
Scope ie Local/Global			Banking, money, how savings accounts and loans work.		Trigonometry in applications e.g building	
Assessment	Short assessment every 8 lessons to review learning so far and allow teacher to know what they need to build on through TRIO time.					