Unit Number	Unit Name	Year 9 Topics Covered	Deeper Thinking
1	Advanced Decimals	Use a calculator for complex calculations	
		Estimation of complex calculations	
2	Advanced Linear Solving	Solve linear simultaneous equations	
3	Further Quadratics	Rearrange formula	Include fractions, square roots etc.
		Factorise and solve quadratics of the form $ax^2 + bx + c = 0$ where $a = 1$	a > 1; solve quadratics which need rearranging first
	Further Graphing	Use y = mx + c to identify parallel lines	Use y = mx + c to identify perpendicular lines
		Find the equation of a line through two points or one point with a given gradient	Find the equation of a line through one point and a given perpendicular gradient
		Estimate the solutions to simultaneous equations graphically	
4		Plot quadratic functions	
		Label key parts of a quadratic sketch	
		Recognise reciprocal, exponential and cubic graphs	
		Recognise and use sequences of triangular, square, quadratic and cube numbers	Calculate the nth term of a quadratic sequence
5	Proportion	Calculate direct and inverse proportion non-algebraically (ratio tables)	Calculate direct and inverse proportion with squares, cubes and roots
5		Calculate direct and inverse proportion algebraically	
6	Trigonometry	Use SOHCAHTOA to calculate the missing angles in right angled triangles	3D Trigonometry
		Use SOHCAHTOA to calculate the missing sides in right angled triangles	
7	Congruence and Similarity	Recognise and use congruence and similarity	
		Use the conditions for congruent triangles in formal geometric proofs	

8	Volume	Volume and surface area of cubes and cuboids Volume and surface area of triangular prisms and other prisms Volume and surface areas of cylinders Volume and surface area of spheres and cones Volume of composite solids	Convert between metric units of area and volume
9	Constructions	Draw and recognise the nets of simple solids	
		Use the standard conventions for labelling sides and angles in triangles	
		Construct a triangle given SAS or ASA	
		Construct a triangle given SSS	
		Draw and measure bearings	
		Use map scales to find distances	
		Construct the perpendicular bisector of a line	
		Construct the bisector of an angle	
		Construct 30°, 60° and 120° angles	
		Solve loci problems	
10	Compound Measures	Understand and use compound measures including speed, density and	
		pressure	
		Draw and interpret distance time graphs	
		Calculate speed from a distance time graph	
		Rates and change	