Year 9 Course Plan (Maths Syllabus)

Topic	Subtopics
1. Algebra 01	1.1. Solving linear equations (recap from y8)
	1.2. Expanding brackets (recap from y8)
	1.3. Rules of indices (recap from y8)
	1.4. Changing the subject of a formula
	1.5. Factorising quadratics and solving quadratic equations by factorising (recap from y8)
2. Surds	2.1. Basic rules
	2.2. Multiplying, dividing, adding, and subtracting surds
	2.3. Expanding brackets involving surds
	2.4. Rationalising the denominator
3. Area and volume – 3D shapes	3.1. Surface area and volume of a sphere
	3.2. Surface area and volume of a cone
	3.3. Surface area and volume of a frustum
4. Congruence and similarity	4.1. Congruence triangles
	4.2. Similar triangles
	4.3. Area of similar shapes

	4.4. Volume of similar shapes
5. Straight line graphs	5.1. Finding equations of a straight line (recap from y8)
	5.2. Parallel and perpendicular lines
	5.3. Line segments (mid point/length)
	5.4. Inverse function
6. Algebra 02 – Functions	6.1. Introduction to functions and finding function values
	6.2. Adding and subtracting functions
	6.3. Composite function
	6.4. Inverse function
7. Circle theorems	—
8. Trigonometry	8.1. Sin rule
	8.2. Cos rule
	8.3. Area of any triangle
	8.4. 3D- Trigonometry and 3D – Pythagoras
9. Graphs of algebraic functions	9.1. Quadratic graphs
	9.2. Cubic graphs
	9.3. Reciprocal graphs
	9.4. Exponential graphs
10. Statistics	10.1. Average from grouped data
	10.2. Frequency polygons
	10.3. Cumulative frequency diagrams
	10.4. Box plots
	10.5. Histogram

	11.1. Solving quadratic equations by factorisation (recap from y8)
	11.2. Solving quadratic equations by using the quadratic formula
	11.3. Solving quadratic equations by completing the squares
	11.4. Solving quadratic simultaneous equations
	11.5. Solving quadratic equations graphically
	11.6. Solving quadratic simultaneous equations graphically
11. Algebra 03	11.7. Algebraic fractions
12. Direct and inverse proportion	12.1. Direct proportion
	12.2. Inverse proportion