

Year 10 Course Plan (Maths Syllabus)

Topic	Subtopics
1. Algebra - 01	1.1. Revision (y8/ y9)
	1.2. Solving quadratic equations by different methods (recap from year 9)
	1.3. Functions (recap from year 9)
	1.4. Fractions (recap from year 9)
2. Sequences	2.1. Linear sequences (arithmetic sequence)
	2.2. Quadratic sequences
	2.3. Geometric sequences
3. Algebra - 02	3.1. Quadratic functions
	i. Completing square form and a quadratic function
	ii. Turning points (maximum and minimum)
	iii. Sketching quadratic graphs
	3.2. Solving quadratic inequalities
	3.3. Graph and some functions (recap from year 9)
	3.3. Trigonometric graphs
	3.3. Transforming graphs
	i. Translating, reflection and stretching

	ii. Combination of transformation
4. Circle graphs	4.1. Equation of circles
	4.2. Solving problems involving lines and circles
5. Constructions	
6. Vectors – solving geometric problems	
7. Probability	7.1. Listing outcomes
	7.2. Probabilities from experiments
	7.3. Independent and mutually exclusive events
	7.4. Probability equations
	7.4. Conditional probability
	7.4. Tree diagrams
8. Compound measures	8.1. $\text{speed} = \text{distance} / \text{time}$
	8.2. $\text{density} = \text{mass} / \text{volume}$
	8.3. $\text{pressure} = \text{force} / \text{area}$
9. Revision topics	9.1. Direct and inverse proportion
	9.2. Statistics (cumulative frequency diagrams/box plots/histograms)
	9.3. Straight line graphs problems
	9.4. Trigonometry problems
	9.4. Area and volume of 3D shapes
	9.4. Surds
	9.4. Percentages and ratios
	9.4. Circle theorem
	9.4. Vectors problems

