Year: 12
Subject: Mathematics

Term	Week	Focus	Summary	Learning Outcomes	Learning skills
Term 1.1	1		Baseline Assessments and orientation	Introduction lessons and baseline assessments.	• Automaticity • Meta-cognition • Resilience
	2	Algebraic Expressions	Expanding Brackets, Surds and Indices	Consolidate knowledge of expanding brackets, manipulating surds and working with indices.	• Automaticity • Recalling knowledge
	3	Quadratics	Quadratic Polynomials and Equations	Consolidate knowledge of solving quadratic equations, solving simultanoues equations and completing the square. Includes discriminant.	• Automaticity • Recalling knowledge
	4	Equations and inequalities	Quadratic and linear equations and inequalities	Consolidate knowledge of simultaneous equations and inequalities, including inequalities on a graph and regions.	• Automaticity • Recalling knowledge
	5	Graphs and transformations	Types of functions & their graphs	Explore linear, quadratic and cubic functions and transformations.	• Big picture thinking • Hard working • Self regulation
	6	Co-ordinate Geometry	Equation of a line	Explore the distance between two points, midpoints, Gradients, general form of straight lines. Intersections.	• Critical and logical thinking • Precision • Intellectual playfulness

Term 1.2	1	Statistics	Probability	Explore to combined and conditional events, tree diagrams and further applications.	• Problem solving • Strategy planning • Meta-cognition
	2	Statistics	Representing data	To explore histograms, box plots and outliers	• Big picture thinking • Hard working • Self regulation
	3	Trigonometric Ratios	Trigonometric graphs and formulae	To explore trigonometric formulae, trigonometric graphs and transformations of trigonometric graphs.	• Problem solving • Strategy planning • Meta-cognition
	4	Radians	Radian measure	To explore radian measures for calculating with arcs, sectors and segments.	• Originality • Fluent thinking • Generalisation
	5	Differentiation	Differentiation of functions	Differentiation of functions and gradients of curves, normals tangents and the second derivative.	• Speed and accuracy • Automaticity • Flexible thinking
	6	Integration	Calculating the integral of a polynomial	To explore integrating polynomials	• Problem solving • Strategy planning • Meta-cognition