



Department:	Mathematics	
Year 10 Course summary:		
<p>In year 10, students acquire many of the skills required for GCSE Mathematics. This includes studying number, algebra, shape and space and data handling. Problem solving is integrated throughout the course and all students are entered into the Intermediate Maths Challenge.</p>		
<p>Algebra</p> <p>Solving Linear Equations</p> <p>Rearranging Equations</p> <p>Factorising Quadratics</p> <p>Coordinate Geometry</p> <p>Equation of Straight Lines</p> <p>Distance Between Two Points</p> <p>Midpoint</p> <p>Parallel and Perpendicular Gradients</p> <p>Solving Equations</p> <p>Factorising</p> <p>Completing the Square</p> <p>Quadratic Formula</p> <p>Non-linear Simultaneous Equations</p>	<p>Indices, Standard Form and Surds</p> <p>Rules of Indices</p> <p>Negative and Fractional Powers</p> <p>Standard Form</p> <p>Surds</p> <p>Rationalising the Denominator</p> <p>Inequalities</p> <p>Solving Inequalities</p> <p>Graphs of Inequalities</p> <p>Quadratic Inequalities</p> <p>Set Theory</p> <p>Venn Diagrams</p> <p>Probability</p> <p>Conditional Probability</p>	<p>3D Shapes</p> <p>Plans and Elevations</p> <p>Sectors of Circles</p> <p>Volume of 3D Pyramids, Cones and Spheres</p> <p>Surface Area of Pyramids, Cones and Spheres</p> <p>Algebraic Fractions</p> <p>Simplify Algebraic Fractions</p> <p>Add and Subtract Algebraic Fractions</p> <p>Solve Equations with Fractions</p> <p>Pythagoras and Trigonometry</p> <p>Right-Angled Triangles</p> <p>Area of a Triangle</p>

Circle Geometry	Angles	Sine Rule
Circle Theorems	Angles in Parallel Lines	Cosine Rule
Proofs of Circle Theorems	Angles in Polygons	Exact Values of Trig Ratios
Functions and Graph Transformations	Constructions	Numerical Solution of Equations and Iterative Methods
Function Notation	Congruence	Change of Sign Method
Inverse Functions	Shape Transformations	Iteration
Composite Functions	Polynomials	Cobweb and Staircase Diagrams
Graphs of Functions	Expanding Three Brackets	3D Trigonometry
Graphs of Circles	Algebraic Proof	Pythagoras in 3D
Equations of Tangents to Circles		Angle Between a Line and a Plane
Graph Transformations		
Trigonometry Graphs		

IST Assessments:

Michaelmas 1	Michaelmas 2	Lent 1	Lent 2	Summer 1	Summer 2