## Maths and Computing Faculty



## Subject - KS4

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 10 Set 1 and 2	Angles in Polygons straight line graphs Algebra - simplifying, expanding, factorising, solving (including Quadratics) Quadratic and Geometric sequences Index rules including fractional and negative	Solve Quadratics by factorising, Quadratic formula and Completing the Square. Recap percentages and complete reverse percentages. Inequalities Ratio - including currency conversion and amending a recipe. Histograms	Simultaneous Equations Linear, Quadratic, cubic graphs. Probability - venn diagrams, Sets, tree diagrams Converting recurring decimals to fractions Accuracy and Bounds	Graphs - reciprocal and circular graphs. Area and circumference of circles recap Arc lengths and areas of sectors. Standard form Surds	Volumes and surface area of 3D shapes - including Prisms, Cylinders, Cone, Spheres, pyramids and complex problems involving these. Simultaneous Quadratic equations. Similarity and Congruence of 2D and 3D shapes. Further trigonometry.	Direct and inverse Proportion. Circle theorems. Functional maths.
Set 3	Angles in Polygons straight line graphs Algebra - simplifying, expanding, factorising, solving (including basic Quadratics) Quadratic and Geometric sequences Index rules including fractional and negative	Fractions - four operations Recap percentages and complete reverse percentages. Inequalities Ratio - including currency conversion and amending a recipe. Cumulative frequency	Simultaneous Equations Linear, Quadratic, cubic graphs. Probability - venn diagrams, Sets, tree diagrams Converting recurring decimals to fractions Pythagoras theorem	Area and Circumference of a Circle. Quadratic Equations - Factorising, Quadratic Formula, Completing the Square.	Histograms Straight Line graphs.	Accuracy and Bounds Trigonometry Functional Maths
Set 4 and 5	Properties of shapes - including triangles, Quadrilaterals. Angle facts - including angles on a straight line, around a point, angles in a triangle, vertically opposite. Real life graphs Substitution Linear Sequences Scatter Graphs Ratio and Proportion.	Percentages - percentage of an amount, Percentage increase and Decrease. Solving Equations Probability. Fractions. Real life graphs.	Equations. Expressions, Substitution. Fractions. Perimeter and area of 2D shapes. Quadratic graphs. Indice rules.	Transformations. Expanding and Factorising single brackets. Area and perimeter of circles.	Averages. Angles and parallel lines. Inequalities. Perimeter and area.	Proportion. Plans and elevations. Construction. Volume and surface area of 3D - shapes.
Year 11 Set 1 and 2	Circle Theorems. Probability recap. Graphs of trigonometric functions. Transformation of functions	Exponential and Reciprocal graphs. Area under a curve and gradient of a curve using a tangent line. Vectors. Direct and inverse	Practise exam papers leading to mock exams Circle Geometry.	Re-consolidation of topics. Exam papers	Re-consolidation of topics. Exam papers	Official Examinations

	Changing the subject of the formula. Algebraic Fractions. Surds. Algebraic proof. Quadratics. Sketching graphs. Circles. Cubic graphs and reciprocal Graphs.	proportion. Further Trigonometry.				
Set 3	Pythagoras and trigonometry. Construction, Loci and Bearings. Polygons, angles and parallel lines Percentages.	Sequences. Averages and the range. Transformations. Volume and surface area of 3D shapes. Product of prime factors and HCF and LCM. Setting up, rearranging and solving equations.	Ratio and proportion. Probability. Cumulative frequency and Box plots.	Standard form. Surds. Quadratic, cubic, and other algebraic graphs. Solving quadratic equations. Solving Simultaneous equations. Inequalities.	Re-consolidation of topics. Exam papers	
Set 4 and 5	Proportion. Angles in Polygons. Probability. Similarity and Congruence. Algebra the basics.	Probability. Construction, Loci and Bearings. Trigonometry in right angled triangles. Algebra the basics. Standard Form. Expressions and substitution.	Volume of 3D shapes. Fractions. Bearings.	Transformations. Charts and graphs. Averages. Algebra the basics	Re-consolidation of topics. Exam papers	