Maths Department - Curriculum Overview - April 2020

Key

Strand	Colour
Number	
Algebra	
Geometry and Measure	
Ratio and Proportion	
Statistics & Probability	

Yr7 Autumn Term	**Algebraic Thinking**			**Place value**		**Averages**
	Sequences	Understand and use algebraic notation	Equivalence, solving one and two steps equations	Place value and ordering integers and decimals	Approximating calculations and estimation	Median, range, mean, 2-way tables, frequency trees
Yr7 Spring Term	**Applications of Number**		**Ratio**	**Directed Numbers**		**Fractions and Decimals**
	Solving problems using the 4 operations	Order of operations	Understand and use ratio notation, ratio/fractions equivalence	Operations and algebraic substitution with directed numbers		Fraction, decimal and percentage equivalence
Yr7 Summer Term	**Lines and Angles**			**Perimeter and Area**	**Reasoning with Number**	
	Constructing, measuring and using geometric notation	Properties of angles: on a line, around a point, in a triangle and in quadrilaterals		Area and Perimeter of squares, rectangles and triangles	Prime numbers	Factors, Multiples, LCM and HCF

Yr8 Autumn Term	**Fractions**	**Proportional reasoning**		**Developing Angles**	**Developing data**	
	Operations with fractions	Ratio and scale	Multiplicative change	Angles in parallel lines and polygons	Sets and probability	Scatter graphs
Yr8 Spring Term	**Algebraic techniques**			**Developing Numbers**		**Graphs**
	Use of brackets, expand and factorise	Equations and inequalities	Indices	Fraction and percentage of a quantity, percentage change, interest	Standard index form	Cartesian coordinates and straight line graphs
Yr8 Summer Term	**Developing Geometry**			**Reasoning with Data**		**Formulae**
	Area of parallelogram, trapezium and circle	Line symmetry, reflection, and rotation	Volume: cubes, cuboids, prisms and cylinders	The data handling cycle: continuous data, averages from tables.		Writing formulae, change of subject

Yr9 Autumn Term	**Reasoning with Algebra**			**Reasoning with Geometry**		
	Equation of a straight line	Simultaneous equations	Graphical solutions of equations and inequalities	Vectors	Translation and enlargement	Similarity and congruency
Yr9 Spring Term	**Statistics**	**Reasoning with Number**		**Working with triangles**		
	Sampling, moving averages, time series	Bounds, truncation, error interval	Surds	Pythagoras' theorem	Trigonometry in right angled triangles	Trigonometry graphs and equations
Yr9 Summer Term	**Probability**	**Reasoning with Proportion**		**Quadratics**		
	Probability trees	Ratio and proportion problems, rates	Product rule for counting, capture and recapture	Solving quadratic equations (factorise and formula)	Quadratic graphs	Completing the square

Yr10 Autumn Term	**Working in 2D and 3D**			**Developing Algebra**		
	Plans and elevations, converting square and cubic units	Volume of pyramids, cones and spheres	Surface area	Quadratic inequalities	Cubic, reciprocal and exponential graphs	Algebraic fractions
Yr10 Spring Term	**Geometry**			**Proportional Change**		**Functions**
	Circle theorems	Further trigonometry	Bearings and loci	Direct and inverse proportion	Instantaneous and average rate of change	Functions
Yr10 Summer	**Delving into Data**			**Applying geometry**		**Probability**
	Frequency polygons, cumulative frequency, box plots, histograms			Vectors and geometric proof	Area under the graph	Algebra and probability, more complex Venn diagrams

Yr11 Autumn Term	**Graphs**			**Complex Algebra**		
	Real life graphs – interpreting gradient and intercept	Sketching graphs	Transformations of graphs	Conjecture and proof	Iteration	Equation of circles, and tangents
Yr11 Spring Term	**Reasoning**			**Communication Marks**		
	Multiplicative	Geometric	Algebraic	Transforming and Constructing	Listing and describing	Show that…
Yr11 Summer Term	**Revision**			**Revision/Examinations**		