Maths Curriculum Map

Year Group	Half Term 1	Half Term 2	Half Term 3	Half Term 4	Half Term 5	Half Term 6
KS3	Integers Powers and Roots Sequences, Functions and Graphs Lines, Angles and Shapes	Data: Interpreting results Constructions and Loci Calculations and accuracy Transformations	Simplifying and Substitution Ratio and Proportion Working with triangles	Forming and solving equations Area and Perimeter	Probability Volume and Surface Area Fractions, Decimals and Percentages	Measures Inequalities Statistical Inquiry
7	• Factors, multiples • Prime factorisation • HCF, LCM • Identifying and continuing sequences • Drawing straight line graphs • Types of triangles • Angles around a point and straight lines	• Mode, Median and Mean • Displaying data • Drawing and measuring angles • Plans and Elevations • Constructing Triangles • Directed numbers • Lines of symmetry and rotational symmetry	• Sequences • Input / output machines • Nth terms • Collecting Terms • Drawing Ratios • Simplifying ratios • Constructing triangles • Draw bearings •	• Solve linear equations • Perimeter/area of squares and rectangles • Area of triangles and parallelograms	• Probability scales • Sum of probabilities • Two way tables • Volume of cubes and cuboids • Surface area of cubes and cuboids • Simplify fractions • Ordering decimals / fractions	• Solve inequalities • Solutions on number lines • Averages • Sampling
8	• Positive and negative indices • Standard Form • Nth Terms • Gradients and y=mx+c • Parallel Lines • Angles sums of triangles • Angles in parallel lines	• Averages from grouped table • Scatter Diagrams • Constructions • Decimal places and significant figures • Enlargements and labelling lines of symmetry • Rotation and Translations	• Expanding brackets • Solving linear Equations • Substitution • Writing Formula • Unitary ratios • Recipe problems • Best value • Sharing Quantities in a ratio • Pythagoras' Theorem	• Solve linear equations • Rearrange formula • Simultaneous equations • Area and perimeter of compound shapes • Area and circumference of circles	• Relative frequency • Sample space diagrams • Tree diagrams • Volume of prisms • Volume of cylinder • Percentages of amounts Four operations with fractions Increase and decrease by a percentage	• Solve inequalities • Represent inequalities graphically • Types of data • Questionnaires

9	• Fractional Indices • Standard Form • Surds • Graphical Simultaneous Equations • Line segments	• Cumulative Frequency Diagrams • Box Plots • Draw, measure and solve bearings problems • Upper and Lower bounds • Combinations of Transformations • Negative/fractional enlargements	• Factorisation • Rearranging Formula • Factorising quadratics • Exchange rates • Direct and Indirect proportion • Trigonometry • 3D Pythagoras	• Solve by factorisation (inc where coefficient is > 1) • Solve quadratics using the formula • Area and arc lengths	• Venn Diagrams • Tree Diagrams • Volume of prisms • Volume of compound shapes • Percentage change • Compound changes • Reverse percentage	• Regions • Quadratic Inequalities • Stratified sampling • Time series
10F	• Graphs • Transformations	• Ratio • Proportion	• Pythagoras • Trigonometry	• Probability • Multiplicative Reasoning	• Construction • Loci	• Quadratic Graphs • Quadratic equations
10H	• Equations and Inequalities	• Similarity and congruency • Statistics	• Trigonometry	• Multiplicative Reasoning • Probability	• Circle Theorem	• Equations and Graphs
11F	• Perimeter • Area • Volume	• Fractions • Indices • Standard Form	• Congruency • Similarity • Vectors	Examination Preparation	Final revision GCSE exams	
11H	• Functions • Algebraic Fractions	• Proofs	• Vectors	Examination Preparation	Final revision GCSE exams	
12	**Pure:** • Algebra and functions • Coordinate geometry in the (x, y) plane	**Pure:** • Trigonometry • Vectors (2D)	**Pure:** • Further algebra	**Pure:** • Differentiation	**Pure:** • Integration • Exponentials and logarithms	• **Year 2** *Differentiation* • *Algebraic and partial fractions and Proof*
	Applied: • Quantities and units in mechanics • Statistical sampling	**Applied:** • Data presentation and interpretation	**Applied:** • Probability • Forces & Newton's laws	**Applied:** • Statistical distributions • Calculate probabilities using	**Applied**: • Kinematics 2 (variable acceleration)	

		• Kinematics 1 (constant acceleration)		the binomial distribution		
12F	**Core Pure 1:** • Complex numbers • Series	**Core Pure 1:** • Algebra and functions • Calculus	**Core Pure 1:** • Matrices	**Core Pure 1:** • Proof • Vectors	**Core Pure 1:** • Vectors	**Year 2 core Pure content:** *Further Integration from Year 2 Pure Content*
	Decision 1: • Algorithms and graph theory	**Decision 1**: • Algorithms on graphs I	**Decision 1**: • Algorithms on graphs II	**Decision 1**: • Linear programming	**Decision 1**: • Critical path analysis	
13	**Pure**: • Trigonometry and Modelling • Radians and Trigonometric Functions	**Pure** • Functions and Modelling • Binomial Expansion	**Pure** • Integration • Parametric Equations • Numerical Methods	**Pure** • Integration cont., • Series and Sequences • Vectors	**Exam Preparation**	
		Applied: • Moments • Normal Distribution	**Applied**: • Forces at any angle • Probability, Applications of forces	**Applied**: • Applications of kinematics • Further kinematics • Regression	**Exam Preparation**	
13F	**Core Pure 2**: • Complex Numbers • Further Algebra	**Core Pure 2:** • Polar coordinates	**Core Pure 2:** • Hyperbolic functions • Further calculus	**Core Pure 2:** • Further calculus cont. • Differential equations	**Exam Preparation**	
	Decision 2: • Transportation Problems • Allocation (Assignment) Problems	**Decision 2:** • Flows in Networks • Dynamic Programming	**Decision 2:** • Game Theory • Decision Analysis	**Decision 2:** • Recurrence Relations	**Exam Preparation**	