

Maths - Key Stage 3 Topics

	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Year 7	Consolidation of number, Extend mental, Construct graphs and diagrams, Collect data, Interpret diagrams and charts, Record data, Location coordinates in 1 quadrant, Reflections, Reflect 2-D shapes and recognise symmetry, Rotations, Generate terms of a sequence, Recognise and use multiples, factors and primes, Using index notation, Recognise square, cubic and triangle numbers, Express functions using symbols, Came 1 2 and 3	Investigate polygons, Estimation and rounding, Bidmas, Draw 2-D shapes in different orientations, Geometric properties of 2-D shapes, Compass constructions, Tessellations, Congruence, Decimals, Came 3 4 and 5	3-D shapes, Probability, Experimental and theoretical probability, Use of formulae, Construct and solve linear equations, Simplify linear expressions, Angles vocabulary and measurement. Came 5 6 and 7	Angles in geometry, Constructing triangles, Negative numbers, Coordinates in 4 quadrants, Straight lines, Metric and imperial measure, Conversions, Read and interpret scales. Came 7 8 and 9	Trial and improvement, Inverses, Areas and perimeters, Surface area and volume, Fractions of quantities, Equivalence of fractions, decimals and percentages, Came 10 11 and 12	Mean of a set of data, Median and mode, Range, Compare distributions, Ratio and proportion, Came 12 13 and 14, Preparation for end of year exams
Year 8	Conversion graphs, Graphs and rules, Time, Travel graphs, Squares and roots, Mental maths, Estimation, Diagrams and charts, Pie charts, Questionnaires, Came	Sequences and number patterns, Finding and reversing rules, Reflections, Translations, Rotations, Enlargements, Money, Using a calculator, Angles on lines, Polygons and tessellations, Came	Bearings Probability, Fractions, decimals and percentages, Lines on a grid, Metric and imperial systems, Proportion maps and scales, Ratio, Perimeter and area, Compound shapes, Came.	Area of triangles, Averages and range, Grouping data, Frequency polygons, Volumes, Trial and improvement, Came.	Equations, Problem solving, Graphs of patterns, Order in number, Intersecting lines, Came	Linear equations, Expanding brackets, simultaneous equations, Intro to quadratics, exam preparation, Came
Year 9	Pythagoras, Linear formulae, Circle investigation, Circles, Data analysis, Mean median and mode	Rounding to d.p. and s.f., Multiply and divide by numbers less than 1, Fix mode on a calculator, Standard form, Upper and lower bounds,	Solve capacity problems, Volumes of cuboids and prisms, Design a presentation box, Decimals, fractions percentages, Ratios, Proportion, Simplify algebraic expressions.	Algebra with brackets, Linear equations, Scatter graphs and correlation, Misleading diagrams, Time and money, Probability	Trial and improvement, Inequalities, Efficient use of a calculator, Mental arithmetic, Angles in polygons, Investigate tessellations, Reflections rotations translations enlargement	Equations of straight lines, Simultaneous equations, Locus of a point, Compass constructions, Symmetries of plane shapes, Nets, Exam preparation

Maths - Key Stage 4 Topics

	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Year 10	Integers, decimals, coordinates	Angles, lines and triangles, Reading scales and converting units, Collecting data	Charts and graphs, Symmetry, similarity and congruence, Types of number	Introduction to algebra, Constructions, Patterns and sequences	Properties of quadrilaterals and parallel lines, Fractions, Pie charts	Fractions, decimals, percentages, Application of percentages, Algebra using powers and brackets
Year 11	Ratio and proportion, Linear equations and inequalities, Perimeter and area	3-D shapes, Real-life graphs, Straight line graphs	Compound measures, Timetables and distance time graphs, Volume	Probability, Use of formulae	Angle properties of polygons, Transformations, Scatter graphs and correlation	Averages and range, Quadratics, Trial and improvement, Circles, Pythagoras

Maths - Key Stage 5 Topics

	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Year 12	Coordinates points and lines, Surds, Important graphs, Quadratics, Differentiation, Inequalities.	Index notation, Graphs of nth power, Polynomials, Transforming graphs, Investigating shapes of graphs, Applications of differentiation, Circles	Trigonometry, Sequences, The binomial theorem, Sine and cosine rules, Integration	Geometric sequences, Exponentials and logs, Factors and remainders, Radians, The trapezium Rule	Velocity and acceleration, Force and motion, Vertical motion, Resolving forces, Motion due to gravity	Newton's third law, Momentum, Combining and splitting forces, Forces in equilibrium, General motion in a straight line
Year 13	Successive transformations, Functions, Exponential growth and decay, Extending differentiation and integration, Differentiating exponentials and logarithms, Trigonometry	The modulus function, Solving equations numerically, The chain rule, Differentiating products, Volumes of integration, Simpsons rule	Differentiating trigonometric functions, Integration, Parametric equations, Vectors, The binomial expansion	Rational functions, Differential equations, Curves defined implicitly, Scalar products of Vectors	The motion of projectiles, Work, energy and power, Potential energy, Moments, Centre of mass, Rigid objects in equilibrium Or Continuous random variables, The normal distribution, The Poisson distribution, Sampling Or Algorithms, Graphs and networks, Minimum connector problems, Finding the shortest path	Impulse and restitution, Motion around a circle, Geometric methods, Centres of mass of special shapes, Strategies for solving problems Or Hypothesis testing: continuous variables, Hypothesis testing: discrete variables, Errors in hypothesis testing Or Route inspection, The travelling salesperson problem, Linear programming, The Simplex algorithm