

Maths 5-Year Curriculum Map

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 7	Number System 1	Number System 2	2-D Geometry	<i>The Cartesian Plane</i>	Fractions	Ratio and Proportion
	Place Value System. Factors, Multiples and Order of Operations; factors, primes + multiples, squaring and cubing numbers, structure of number, order of ops.	Positive and Negative Numbers; negative numbers in context, using negatives with all 4 operations. Expressions, equations and sequences; missing terms, nth term, writing expressions, equivalent expressions, forming equations.	Angles; measuring + drawing, straight line and at a point, parallel lines, expressions from angle facts. Classifying 2-D shapes; polygons, rotation + line symmetry, area of triangles + quadrilaterals, constructing triangles.	<i>Coordinates; plotting points in all four quadrants, horizontal and vertical lines, midpoints of lines. Transforming 2D figures; translation, rotation and reflection, enlargement.</i>	Primes. Factors and Multiples; prime factor decomposition, LCM and HCF, Square and Cube Roots. Fractions; equivalent fractions, converting between fractions and decimals, recurring decimals, multiply and divide fractions, fractions of an amount, mixed/improper, addition and subtraction.	Ratio; ratio notation, ratio and fractions, working with ratios and quantities. Percentages; equivalence to fractions and decimals, % of an amount, finding the original amount, using %s, fractions and decimals.
Year 8	Equations and Inequalities 1	Equations and Inequalities 2	Proportional Reasoning	Representations and Reasoning with Data	Angles	Area, Volume and Surface Area
	Forming + Solving Equations; review Y7 algebra, form algebraic expressions, unknowns on both sides, involving fractions. <i>Inequalities: language and symbols, using a number line, algebraic inequalities and solving, graphical representation.</i>	<i>Linear Graphs; plot coordinates to generate straight lines, identify key features of a linear graph, $y = mx + c$, identify parallel lines. Accuracy and Estimation; rounding to dp and sf, upper and lower bounds, estimation.</i>	Ratio, real-life graphs and rate; review year 7 ratio, scales + reading maps, read and interpret real life graphs, rates of change including SDT. Direct and Inverse Proportion; similarity, represent proportion algebraically.	Univariate Data: Construct and interpret charts and graphs, mean, median, mode and range, outliers. Bivariate Data; Scatter graphs, correlation, line of best fit, interpolation and extrapolation.	Parallel Lines Review. <i>Angles in Polygons, sum of interior and exterior, solve problems involving angles. Bearings; conventions of bearings, calculate and measure.</i>	Circles and Composite Shapes; area and circumference, area and perimeter of composite shapes. Volume of Prisms; cubes, prisms and composite solids, units of volume. Surface area of Prisms, nets of prisms, surface area of cubes and prisms.
Year 9	Probability	Quadratics	Geometry of Triangles	Ratio and Proportion	Linear Simultaneous Equations	Reasoning with number
	Probability; FDP review, theoretical and experimental probability, probability of single and combined events. Sample Spaces; venn diagrams, sample spaces, two-way tables, tree diagrams.	Quadratic expressions and equations; creating quadratic equations, expanding and factorising binomials, plotting quadratics, solving quadratic equations, completing the square + turning points.	Constructions, congruence and loci; ruler and compass constructions, congruence, loci. Pythagoras Theorem; using pythagoras in 2D + 3D	Enlargement and similarity; review Y7 + Y8 ratio, similarity and enlargement, area and volume of similar shapes. Surds + Trigonometry; surds , using trig ratios, solve problems using trig ratios.	Solving Graphically; setting up simultaneous equations, finding solutions graphically. Solving algebraically; using algebraic methods to solve simultaneous equations.	Indices and Standard Form; index notation + rules, fractional and negative indices , comparing and ordering in standard form, calculating in standard form. Growth and decay; compound % change, reverse percentages
Year 10	Reasoning in Angles + Probability	Developing Algebra	Proportional Reasoning	Vectors + FDP Review	Representing Algebraic Functions	Geometry + Measures of Location
	Circle Theorems; review angles, deriving circle theorems, using circle theorems to find missing angles. Probability; expectation, combination, conditional probability , independent events.	Developing Algebraic Thinking; manipulating, expressions, identities + equations, more quadratic equations , linear and non-linear inequalities, non-linear simultaneous equations, recurring decimals.	Direct and Inverse Proportion; review KS3 ratio, expressing variables in direct and indirect proportion, graphs of variables in direct + indirect proportion. Pythag + Trig; trig review, 3D pythag, trig graphs, using trig ratios in 3D.	Vectors; column vector notation, vector arithmetic, resultant vectors, parallel and co-linear vectors, vector proof. FDP Review; FDP, compound measures (pressure/density).	Functions; linear functions review, parallel and perpendicular lines, function notation, inverse + composite functions, transformations of functions. Other Graphs; cubic graphs, reciprocal graphs, equation of a circle + tangents and perpendiculars	Area and Volume of 2-D, 3D shapes; nets, surface area, volume of a prism, volume of cones, pyramids and spheres. Averages; mean, median and mode for grouped data.
Year 11	Working with Number + Geometric Reasoning	Statistics and Charts	Revision - Statistics GCSE Focus	Revision	Revision	n/a
	Indices + Standard Form; review indices and surds, problem solving with indices + surds , calculating with standard form. Constructions + proof; constructions review + loci for GCSE, algebraic and geometric proof.	Statistical Charts + Techniques; box plots, cumulative frequency graphs, histograms, capture/recapture. Transformations and algebraic methods; further graphs, iteration, area under a curve, estimating gradient.	Additional Statistics GCSE Topics; interpercentile/decile range, standard deviation, SRC, PPMCC, moving averages, binomial distribution, standardised scores, quality assurance.			