

KS3 Curriculum Plan

Year 7	TOPIC	LP1	LP2	LP3	LP4	LP5
		<i>Algebraic Thinking</i>	<i>Place value & proportion, Application of number</i>	<i>Application of number & Directed number</i>	<i>Fractional thinking & Lines & angles</i>	<i>Lines & Angles & Reasoning with number</i>
	Knowledge	Sequences, Algebraic notation, Equality & equivalence, Place value	Place value & ordering integers & decimals, Fractions, decimals & percentages equivalence, Using addition & subtraction	Using multiplication & division, Fractions & percentages of amounts, Operations & equations with directed number	Addition & subtracting fractions, constructing, measuring & using geometric notation, developing geometric reasoning	Developing geometric reasoning, developing number sense, sets & probability, prime numbers & proof
	Procedural knowledge	Apply and demonstrate knowledge and understanding of mathematical skills to problem solve, using a range of modelling & mathematical representations. Use reasoning strategies to investigate mathematical concepts. Prove conjectures within the maths content taught.				
	Key Vocab	Describe, sequence, term, predict, check, difference, constant, successive, linear sequence, non-linear sequence, ascending sequence, descending sequence, term-to-term rule, geometric sequence, Fibonacci sequence, tabular, graph, axis, trial and improvement, function, variable, coefficient, expression, substitute, evaluate, two-step, inverse, equal, equation, fact family, commutative, linear equation, solve, solution, like terms, unlike terms, equivalent, simplify,	Integer, digits, represent, partition, estimate, inequality symbol, round, powers of 10 Range, median, measure of spread, tenth, hundredth, thousandth, significant figures, order of magnitude, power, standard form, convert, proportion, per cent, pie chart, sector, fraction, diagram, number line, equivalent, division, improper fraction, mixed number, total, difference, partition, commutative, associative law for addition, exchange, perimeter, credit, debit, balance, profit, loss, frequency, frequency tree, two-way table, timetable, bar chart, line graph	Factor, factor pair, multiple, highest common factor, lowest common multiple, centi, milli, kilo, product, parallelogram, base, perpendicular, area, dividend, divisor, quotient, remainder, total, mean, operation, priority, trapezium, unit fraction, percentage, convert, original, directed number, negative number, zero pairs, demonstrate, evaluate, substitute, expression, equation, solve, solution, unknown, priority, indices, power, exponent, root	Mixed number, numerator, denominator, improper fraction, convert, non-unit fraction, equivalent, multiple, lowest common multiple, common denominator, expression, equation, evaluate, line segment, angle, clockwise, anti-clockwise, acute angle, right angle, obtuse angle, reflex angle, polygon, regular polygon, parallel, perpendicular, construct, side, pie chart, proportion, sector, frequency, adjacent, vertex, vertically opposite angles, find, give reason, properties, parallelogram kite, interior angle,	Interior angles, polygon, regular polygon, transversal, corresponding angles, alternate angles, co-interior angles, proof mental strategy, integer, decimal, fraction, factor, estimate, derive, set, element, universal set, inclusive, intersection, union, compliment, probability, random, sample space, biased, equally likely, outcome, multiple, array, remainder, prime number, factor, multiple, highest common factor, lowest common multiple, product, prime number, prime factor decomposition, conjecture, counter example

Year 8	TOPIC	LP1	LP2	LP3	LP4	LP5
		<i>Proportional reasoning</i>	<i>Representations</i>	<i>Algebraic techniques & Developing number</i>	<i>Developing number & geometry</i>	<i>Developing Geometry & reasoning with data</i>
	Knowledge	Ratio & scale, Multiplicative change, Multiplying & dividing fractions	Working in the Cartesian plane, Representing data, tables & probability, brackets, equations & inequalities	Brackets, equations & inequalities, sequences, indices, fractions & percentages	Standard index form, number sense, angles in parallel lines & polygons, area of trapezia & circles	Line symmetry & reflection, the data handling cycle, measures of location
	Procedural knowledge	Apply and demonstrate knowledge and understanding of mathematical skills to problem solve, using a range of modelling & mathematical representations. Use reasoning strategies to investigate mathematical concepts. Prove conjectures within the maths content taught.				
	Key Vocab	Ratio, proportion, comparison bar models, double number line, divide in a ratio, simplify, equivalent, factor, highest common factor (HCF), diameter, radius, circumference, gradient, Direct proportion, constant, multiplier, conversion graph, axis, exchange rate, similar, enlargement, scale factor, scale, scale drawing, map, Fraction, integer, numerator, denominator, unit fraction, non-unit fraction, equivalent, divide, reciprocal, improper fraction, mixed number, algebraic fraction.	Quadrant, origin, coordinate, parallel, linear, direct proportion, gradient, y-intercept, negative, non-linear, curve, midpoint, line segment, correlation, origin, outlier, discrete, continuous, qualitative, quantitative, frequency, grouped data, class interval, two-way table, sample space, probability, random, Venn diagram, outcome, Term, expression, coefficient, simplify, substitute, expand, factorise, simplify, binomial	Solve, solution, inequality, solution set, satisfy, unknown, check, variable, formula, identity, equation, Sequence, term-to-term rule, linear sequence, geometric sequence, non-linear sequence, general term, Expression, power, index, indices, base, simplify, Convert, equivalent, multiplier, decrease, reduce, increase, express, factor, profit, loss, original value, reverse percentages	Base, index, power, standard form, commutative, reciprocal, square root, cube root, Significant figure, estimate, order of operations, decimal places, degree of accuracy, error interval, centi, milli, kilo, area, volume, capacity, Adjacent, vertically opposite angles, alternative angles, co-interior angles, corresponding angles, transversal, bisect, construct, diagonal, isosceles, exterior angle, interior angle, polygon, regular polygon, give a reason, proof, bisector, construct, equidistant, Area, formula, perpendicular height, sector, radius, diameter, Pi, compound shape	line of symmetry, polygon, regular, symmetrical, congruent, reflection, vertex, diagonal, Hypothesis, primary data, questionnaire, sample, secondary data, axis, key, compare, line graph, multiple bar chart, distribution, misleading graphs, range, Average, mean, median, mode, modal class, estimate, frequency, midpoint, subtotal, outlier,

Year 9	TOPIC	LP1	LP2	LP3	LP4	LP5
		<i>Reasoning with algebra</i>	<i>Constructing in 2 & 3 dimensions, Reasoning with number</i>	<i>Reasoning with number & geometry</i>	<i>Reasoning with geometry & proportion</i>	<i>Reasoning with proportion & representations</i>
	Knowledge	Straight line graphs, forming & solving equations, Testing conjectures, three dimensional shapes	Three dimensional shapes, constructions & congruency, numbers	Using percentages, maths & money, deduction, rotation & translation	Rotation & translation, Pythagoras' theorem, enlargement & similarity, solving ratio & proportion	Solving ratio & proportion, rates, probability, algebraic representations
	Procedural knowledge	Apply and demonstrate knowledge and understanding of mathematical skills to problem solve, using a range of modelling & mathematical representations. Use reasoning strategies to investigate mathematical concepts. Prove conjectures within the maths content taught.				
	Key Vocab	Table of Values, Parallel, Axis, Coordinate, Gradient, Intercept, Equation, Inverse Proportion, Perpendicular, Reciprocal, Equation, Inequality, Solve, Solution, Expand, Variable, Formula (plural: Formulae) Subject, Rearrange, Factor, Multiple, Prime Number, Prime Factor Decomposition, Conjecture, Counterexample, Expand, Factorise, Binomial, Prove	2D-shapes, 3D-shapes, Edge, Vertex (plural: vertices) Face, Prism, Net, Plan, View, Elevation, Isometric drawing, Area, Perpendicular, Compound Shape, Surface Area, Volume, capacity, Cross-section, Prism, Construct, Sketch, Acute, Obtuse, Scale, Locus (plural: loci), Equidistant, Bisector, Congruent, Orientation, Hypotenuse, Integer, Real number, Rational number, Irrational number, Factor, Multiple, Surd, Integer, Significant figure, Estimate, Error interval, Decimal, Negative number, Directed number, Numerator, Denominator, Reciprocal, Power, Exponent, Standard form,	Equivalent, Multiplier, Profit, Loss, Original value, Reverse percentage, Repeated percentage change, Depreciate, Bill, Balance, Credit, Debit, Interest, Deposit, Per annum, Annual, Principal, Income tax, VAT, Overtime, Tax allowance, Currency, Convert, Exchange rate, Unit cost/price, Transversal, Corresponding angles, Alternate angles, Co-interior angles, Give a reason, Interior angle, Exterior angle, Regular polygon, Conjecture, Proof, Counterexample, Rotational symmetry, Line of symmetry, Irregular, Regular, Rotation, Vertex, Congruent	Translation, Transformation, Reflection, Orientation, Square root, Hypotenuse, Right angle, Isosceles, Perpendicular, Line segment, Midpoint, Dimensions, Enlargement, Similar, Scale factor, Dimensions, Centre of enlargement, Fractional scale factor, Vector, Trigonometry, Hypothenuse, opposite sides/angles, Adjacent sides/angles, Direct proportion, conversion graph, unitary method, Inverse proportion, Constant, Ratio, Divide in a ratio, multiplier	Unit cost/price, best buy, Ratio, divide into a ratio, multiplier, Rate, Speed, Gradient, Constant, Density, Mass, Volume, Probability, Relative frequency, expected outcomes, Fair, Independent events, Tree diagram, Replacement, Quadratic, Parabola, Piece-wise graph, Simultaneous, Graphical, point of intersection, Inequality, Satisfy