

KS4 Curriculum Plan

Year 10	TOPIC	LP1	LP2	LP3	LP4	LP5
		<i>Repeated percentage change</i> <i>Surface area</i> <i>Volume</i> <i>Linear simultaneous equations</i>	<i>Rearranging formulae</i> <i>Right-angled trigonometry</i> <i>Constructions and loci</i> <i>Equations of linear graphs</i> <i>Plotting and interpreting real-life graphs</i>	<i>Plotting and interpreting real-life graphs</i> <i>Venn diagrams and set notation.</i> <i>Independent and dependent events</i> <i>Density and pressure</i> <i>Working with ratios and algebra</i>	Foundation <i>Velocity-time graphs Higher</i> <i>Velocity-time graphs</i> <i>Cubic, reciprocal and exponential graphs</i> <i>Arithmetic and geometric sequences</i> <i>Quadratic and geometric sequences</i> <i>Sampling, Direct and inverse proportion</i> <i>Transforming shapes Higher, Error intervals</i> Higher <i>Velocity-time graphs</i> <i>Cubic, reciprocal and exponential graphs</i> <i>Arithmetic and geometric sequences</i> <i>Quadratic and geometric sequences</i> <i>Sampling</i> <i>Direct and inverse proportion</i> <i>Transforming shapes, Bounds</i>	Foundation <i>Index laws</i> <i>Expanding and factorising brackets</i> <i>Grouped data.</i> <i>Drawing and interpreting statistical diagrams.</i> Higher <i>Index laws</i> <i>Fractions and recurring decimals</i> <i>Expanding and factorising brackets</i> <i>Cumulative frequency graphs</i> <i>Box plots</i>
		Repeated percentage change, Surface area, Volume, Linear simultaneous equations	Rearranging formulae, Right-angled trigonometry, Constructions and loci, Equations of linear graphs, Plotting and interpreting real-life graphs	Plotting and interpreting real-life graphs, Venn diagrams and set notation, Independent and dependent events, Density and pressure, Working with ratios and algebra	F Velocity-time graphs, Cubic, reciprocal and exponential graphs, Arithmetic and geometric sequences, Sampling, Direct and inverse proportion, Transforming shapes, Error intervals H Quadratic and geometric sequences, Sampling, Direct and inverse proportion, Transforming shapes, Bounds,	F Index laws, Expanding and factorising brackets, Grouped data, Drawing and interpreting statistical diagrams, H Index laws, Fractions and recurring decimals, Expanding and factorising brackets, Cumulative frequency graphs, Box plots
		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.				
		Percentages Original amount, multiplier, percentage change, investment, profit, loss, compound interest, annual, salary, half-life, simple interest, Surface area Volume Perpendicular, parallelogram, triangle, trapezium, isosceles trapezium, compound shape, surface area, volume, cuboid, prism, cross-section, circumference, pi, chord, arc, segment, sector, tangent, pyramid, cone, slant height, sphere. Solving simultaneous equations algebraically Equation, Inequality, Solve, Solution, Expand, Variable, Formula (plural: Formulae) Subject, Rearrange, brackets, linear, quadratic, integer, factorise.	Algebraic manipulation Expression, equation, identity, formula, variables, substitute, rearrange, subject Constructions & Loci Perpendicular, bisect, radius, angle, measure, equidistant Straight line graphs Coordinate, parallel, axis, midpoint, linear, gradient, steepness, linear equation, intercept, Right angled triangles Hypotenuse, Pythagoras' theorem, surd, opposite, adjacent, sine, cosine, tangent	Straight line graphs Coordinate, parallel, axis, midpoint, linear, gradient, steepness, linear equation, intercept, Venn diagrams Intersection, universal set, subset, union Independent & dependant events Tree diagram, replacement, Branch, events Compound units Density, pressure, speed, force, rates of pay Ratio & Algebra Ratio, highest common factor, simplify, simplest form, share into, unit ratio sketch velocity	Graphs Coordinate, parallel, axis, midpoint, linear, gradient, steepness, linear equation, intercept, Exponential, cubic Sequences Nth term, position, rule, Difference Sampling Inequality, Discrete data, continuous data, grouped frequency table, two-way table, composite bar chart, line graph, trend, time series, pie chart, outlier, estimate, random sample Direct & inverse proportion proportion, unitary method, direct proportion, inverse proportion, Transformations Enlargement, rotation, translation, reflection, centre, scale factor, clockwise, anticlockwise, column vector, symmetry	Error intervals bounds estimate, significant digit, error interval, bounds, greater than or equal to, less than. Indices index (indices), power, prefix, root, standard form, ordinary form, Expand and factorise Equation, Inequality, Solve, Solution, Expand, Variable, Formula (plural: Formulae) Subject, Rearrange, brackets, linear, quadratic, integer, factorise. Grouped data Midpoint, frequency, Inequality, Discrete data, continuous data, grouped frequency table, two-way table, composite bar chart, line graph, trend, time series, pie chart, outlier, estimate, random sample Statistical diagrams Inequality, Discrete data, continuous data, grouped frequency table, two-way table, composite bar chart, line graph, trend, time series, pie chart, outlier, estimate, random sample

	TOPIC	LP1	LP2	LP3	LP4	LP5
		Number, Algebra & Geometry	Geometry, Data, Probability	Algebra, Geometry, Proportion	Number, Algebra & Preparation for exams	Revision
	Knowledge	Factors, multiples and primes, Fractions, Expressions, Equations, Angles	Right-angled triangles, Surface area and volume, Statistical diagrams, Probability	Inequalities, Vectors, Percentages, Compound measures, Ratio and proportion, Standard form	Sequences, Linear graphs	GCSE exams
	Skills	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	Number Highest common factor (HCF), lowest common multiple (LCM), index (indices), power, prefix, prime factor decomposition, Unit fraction, numerator, improper fraction, mixed number, reciprocal, depreciate, simple interest, standard form, ordinary form, estimate, significant digit, error interval. Algebra Term, like term, variable, common factor, multiply out, factorise, linear, quadratic. Expression, equation, identity, substitute, rearrange, subject. Intersection, simultaneous equation, intercept, estimate. Inequality, Solve, Solution, Expand, multiply out, Variable, Formula (plural: Formulae) brackets, integer, Sequence, terms, term-to-term rule, general term. Coordinate, parallel, axis, midpoint, linear, gradient, steepness, linear equation, intercept, distance-time graph, average speed, rate of change, roots, cubic function, asymptotes, intersection Geometry Column vector, maps, centre of rotation, centre of enlargement, origin, congruent, similar, corresponding sides, corresponding angles, scale factor, perpendicular, parallelogram, triangle, trapezium, isosceles trapezium, compound shape, surface area, volume, cuboid, prism, cross-section, circumference, pi, chord, arc, segment, sector, tangent, pyramid, cone, slant height, sphere. hypotenuse, Pythagoras' theorem, surd, opposite, adjacent, sine, cosine, tangent	Geometry Column vector, maps, centre of rotation, centre of enlargement, origin, congruent, similar, corresponding sides, corresponding angles, scale factor, perpendicular, parallelogram, triangle, trapezium, isosceles trapezium, compound shape, surface area, volume, cuboid, prism, cross-section, circumference, pi, chord, arc, segment, sector, tangent, pyramid, cone, slant height, sphere. hypotenuse, Pythagoras' theorem, surd, opposite, adjacent, sine, cosine, tangent Probability Probability, mutually exclusive, exhaustive, experimental probability, relative frequency, Venn diagram, tree diagram, frequency tree, independent, dependent events, Statistics: Population, bias, sample, census, random, stratifies sample, cumulative frequency, upper quartile, lower quartile, interquartile range, box plot, histogram, frequency density, outliers	Algebra Term, like term, variable, common factor, multiply out, factorise, linear, quadratic. Expression, equation, identity, substitute, rearrange, subject. Intersection, simultaneous equation, intercept, estimate. Inequality, Solve, Solution, Expand, multiply out, Variable, Formula (plural: Formulae) brackets, integer, Sequence, terms, term-to-term rule, general term. Coordinate, parallel, axis, midpoint, linear, gradient, steepness, linear equation, intercept, distance-time graph, average speed, rate of change, roots, cubic function, asymptotes, intersection. Geometry Column vector, maps, centre of rotation, centre of enlargement, origin, congruent, similar, corresponding sides, corresponding angles, scale factor, perpendicular, parallelogram, triangle, trapezium, isosceles trapezium, compound shape, surface area, volume, cuboid, prism, cross-section, circumference, pi, chord, arc, segment, sector, tangent, pyramid, cone, slant height, sphere. hypotenuse, Pythagoras' theorem, surd, opposite, adjacent, sine, cosine, tangent. Ratio & Proportion Ratio, highest common factor, simplify, simplest form, proportion, unit ratio, unitary method, direct proportion, inverse proportion, compound interest, per annum, annual, salary, half-life,	Number Highest common factor (HCF), lowest common multiple (LCM), index (indices), power, prefix, prime factor decomposition, Unit fraction, numerator, improper fraction, mixed number, reciprocal, depreciate, simple interest, standard form, ordinary form, estimate, significant digit, error interval. Algebra Term, like term, variable, common factor, multiply out, factorise, linear, quadratic. Expression, equation, identity, substitute, rearrange, subject. Intersection, simultaneous equation, intercept, estimate. Inequality, Solve, Solution, Expand, multiply out, Variable, Formula (plural: Formulae) brackets, integer, Sequence, terms, term-to-term rule, general term. Coordinate, parallel, axis, midpoint, linear, gradient, steepness, linear equation, intercept, distance-time graph, average speed, rate of change, roots, cubic function, asymptotes, intersection.	GCSE exams

	TOPIC	LP1	LP2	LP3	LP4	LP5
		Number, Algebra & Geometry	Geometry, Data, Probability, Algebra	Algebra, Geometry, Proportion	Geometry, Graphs & Preparation for exams	Revision
	Knowledge	Surds, Algebraic fractions, Equations, Trigonometric ratios	Pythagoras' theorem and trigonometry, Circle geometry, Statistical diagrams, Probability, Inequalities	Functions, Transformations, Iteration, Algebraic proof, Similarity, Vector proofs	Writing geometric proofs, Non-linear graphs	GCSE exams
	Skills	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.				
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