

Maths Curriculum Overview 2025-2026

This overview document details what students will be studying in this subject area over the course of their time with us and the skills and knowledge they will be covering. Students will be formally assessed across the year and their progress and ATL (Attitude to Learning) will be reported home at the end of each term. Assessments will aim to assess the knowledge and skills a student has covered up to that point in their education, including the curriculum covered in the previous year/s.

Year Group	Autumn Assessment (w/c)	Spring Assessment (w/c)	Summer Assessment (w/c)
7	1/12/25	2/3/26	22/6/26
8	10/11/25	9/3/26	22/6/26
9	1/12/25	2/3/26	22/6/26
10	10/11/25	9/3/26	29/6/26
11	17/11/25	23/2/26	22/6/26
12	10/11/25	9/3/26	29/6/26
13	17/11/25	23/2/26	22/6/26

Half term	02.09.25 - 23.10.25	03.11.25 - 19.12.25	05.01.26 - 13.02.26	23.02.26 - 26.03.26	13.04.26 - 22.05.26	01.06.26 - 17.07.26
	Autumn 1 - 8 weeks	Autumn 2 - 7 weeks	Spring 1 - 6 weeks	Spring 2 - 5 weeks	Summer 1 - 5 weeks	Summer 2 - 7 weeks
Year 7	 Algebra - Sequences Describe, continue and find missing terms in sequences, predict next terms, recognise linear and non-linear sequences, explain the term-to-term rule. Algebra - Algebraic notation Using function machines to find output and inverse functions to find inputs, using numbers, diagrams and letters with functions machines, substituting values in two-step expressions. Algebra - Equality and equivalence Understand terminology, solve one step equations, simplifying expressions by collecting like terms 	 Number - Place value and ordering integers and decimals Write, understand and order any numbers up to one billion, rounding, writing numbers as powers of 10, standard form Number - Fraction, decimals and percentages Looking at tenths, hundredths, fifths, quarters, eighths and thousandths, convert and link between FDP, pie charts, exploring fractions above one 	Number - Addition and subtraction - Using mental and written strategies to add and subtract integers and decimals, financial problems, frequency trees, bar and line charts, standard form Number - Multiplication and division - Using formal methods to multiply and divide integers and decimals, area of shapes, mean, multiplication in algebraic expressions Number - Fractions and percentages of amounts - Finding percentage of an amount, find fraction of an amount	Number - Operations with directed number - Add, subtract, multiply, divide directed number, two- step equations, roots and powers - Number - Addition and subtraction of fractions - Convert between mixed numbers and fractions, arithmetic problems with fractions, equivalent fractions, fractions in algebraic contexts,	Geometry - Geometric notation - Angle notation, draw and measure angles, compass skills, basic angle facts, angles in triangles and quadrilaterals, constructing triangles, interpreting and drawing pie charts Geometry - Geometry - Geometric reasoning - Angles on parallel lines, angle facts, interior/exterior angles in polygons, proofs with angles, using angle facts, properties of quadrilaterals and properties of special triangles. Number - Number sense - Deepen knowledge and revisit different strategies to add, subtract, multiply and divide integers and decimals, use number facts to derive other facts	 Probability - Sets and probability Probability vocabulary, scales, Venn diagrams, union of sets, complement of a set, express probability, sample space Number - Prime numbers and proof Prime numbers, square numbers, triangular numbers, factors, multiples, prime decomposition (HCF/LCM)

Half term	02.09.25 - 23.10.25	03.11.25 - 19.12.25	05.01.26 - 13.02.26	23.02.26 - 26.03.26	13.04.26 - 22.05.26	01.06.26 - 17.07.26
	Autumn 1 - 8 weeks	Autumn 2 - 7 weeks	Spring 1 - 6 weeks	Spring 2 - 5 weeks	Summer 1 - 5 weeks	Summer 2 - 7 weeks
Year 8	Ratio and proportion - Ratio and scale - Meaning and representation of ratio, simplify ratios, solve problems with ratios 1:n/m:n, share into a ratio, compare ratios and fractions Ratio and proportion - Multiplicative change - Direct proportion, direct proportion graphs, currency conversions, scale factors Number - Multiplying and dividing fractions - Find product of fraction and an integer, find product of any fractions, reciprocal of a number, divide any pair of fractions, multiply and divide algebraic fractions	Algebra - Working in the Cartesian plane - Identify lines parallel to x and y axis, recognise the line y=x, explore positive and negative gradients, plot graphs in the form y=mx+c, linear and non-linear graphs, midpoint of a line segment Statistics - Representing data - Draw and interpret scatter graphs, line of best fit, describe linear and non-linear correlation, frequency tables (grouped/ungrouped), two-way tables. Probability - Tables and probability - Sample space, two-way tables, Venn diagrams, product rule for probabilities	Algebra - Brackets, equations and inequalities - identify and use formulae, expressions, identities and equations, forming expressions, multiply out single bracket and pair of binomials, form and solve equations and inequalities, unknowns on both sides, solving equations with brackets Algebra - Sequences - Generate sequences, use a simple algebraic rule, use a complex algebraic rule, find the nth term Number - Indices - Add and subtract expressions with indices, simplify algebraic expressions by multiplying and dividing indices, addition and subtraction law, powers of powers.	• Number - Fractions and percentages - Convert fluently between FDP, FDP of an amount, using multipliers, percentage change, reverse percentages, • Number - Standard index form - Convert between standard form and ordinary numbers, order numbers in standard form, calculate with numbers in standard form, negative indices, fractional indices • Number - Number - Number sense - Rounding to d.p and s.f, error level notation, estimation, money calculations, convert metric lengths, areas and volume, convert units of weight and capacity, calendar and time problems.	• Geometry - Angles in parallel lines and polygons - Angle notation, transversal, alternate angles, corresponding angles, co-interior angles, construct, identify and calculate sides and angles of triangles and quadrilaterals, use the sum of interior or exterior angles of polygons, geometric fact proof, angle bisector • Geometry - Area of trapezia and circles - Calculate area of triangles, rectangles, parallelograms, trapeziums, circles, perimeter and area of compound shapes • Geometry - Line symmetry and reflection - Line symmetry in shapes, reflect a shape in a horizontal or vertical line, reflect a shape in a diagonal line.	Statistics - Data handling cycle - Set up a statistical enquiry, collect data, design questionnaires, draw and interpret tables and charts, draw and interpret pie charts, grouped quantitative data, finding the range, compare distributions, misleading graphs Statistics - Measures of location - Averages, mean, mode, median, range, mean from grouped and ungrouped frequency tables, identify outliers, compare distributions using averages and the range.

Half term	02.09.25 - 23.10.25	03.11.25 - 19.12.25	05.01.26 - 13.02.26	23.02.26 - 26.03.26	13.04.26 - 22.05.26	01.06.26 - 17.07.26
	Autumn 1 - 8 weeks	Autumn 2 - 7 weeks	Spring 1 - 6 weeks	Spring 2 - 5 weeks	Summer 1 - 5 weeks	Summer 2 - 7 weeks
Year 9	Algebra - Straight line graphs - Using a table of values, gradients, intercepts, understand and write an equation in the form y=mx+c, finding an equation from a line, inverse proportion, perpendicular lines. Algebra - Forming and solving equations - One and two-step equations and inequalities, solve equations and inequalities with unknowns on both sides, rearrange formulae (one step, two step and complex) Algebra - Testing conjectures - Factors, multiples, primes, show that questions, true or false, expand a pair of binomials, expand three binomials	Geometry - Three dimensional shapes Recognise 2D and 3D shapes, nets of 3D shapes, plans and elevations, area of 2D shapes, surface area of 3D shapes, volume of 3D shapes including cones, pyramids and spheres. Geometry - Constructions and congruency Draw and measure angles, locus from a point, locus from a line, locus equidistant from two points, perpendicular bisector, angle bisector, congruency, congruent triangles, construct triangles, SAS, ASA, SSS	 Number - Numbers Understand the difference between, integers, decimals, real and rational numbers, surds, directed number, HCF, LCM, 4 operations with fractions, standard form Number - Using percentages Percentage increase and decrease, reverse percentages, repeated percentage change Number - Maths and money Calculate simple interest, compound interest, problems with VAT, wages and taxes, exchange rates, unit pricing, best buy problems. 	Geometry - Deduction - Angles in parallel lines, solve problems using chains of reasoning, angles problems with algebra, conjecture with angles/shapes, linking constructions and geometrical reasoning. Geometry - Rotation and translation - Rotational symmetry, translate using vectors, rotation and reflection of shapes, follow multiple transformations Geometry - Pythagoras Theorem - Squares and roots, identify sides of a right angles triangle, calculate hypotenuse, calculate any missing side, use Pythagoras Theorem, Pythagoras Theorem in 3D shapes.	 Ratio and proportion - Enlargements and similarity Enlarge by positive scale factor, enlarge by fractional scale factor, enlarge by negative scale factor, similar shapes, problems with similar triangles, ratios in right-angled triangles. Ratio and proportion - Ratio and proportion problems Direct and inverse proportion, conversion graphs, ratio problems, bust buys problems, problems with ratio and algebra Proportion - Rates Speed distance and time problems, density mass and volume problems, flow problems, rates of change units, compound unit conversions. 	Probability Probability - Single event probability, relative frequency, independent events, tree diagrams, using diagrams to work out probabilities. Algebra - Algebraic representation - Draw and interpret quadratic graphs, reciprocal graphs, simultaneous equations on graphs, represent inequalities. Consolidation of all topics

	02.09.25 - 23.10.25	03.11.25 - 19.12.25	05.01.26 - 13.02.26	23.02.26 - 26.03.26	13.04.26 - 22.05.26	01.06.26 - 17.07.26
Half term	Autumn 1 - 8 weeks	Autumn 2 - 7 weeks	Spring 1 - 6 weeks	Spring 2 - 5 weeks	Summer 1 - 5 weeks	Summer 2 - 7 weeks
				Maths		
	Higher	Higher	Higher	Higher	Higher	Higher
Year 10 H	• Geometry - Congruence, similarity and enlargement - Enlarge by positive / fractional/ negative scale factor, sides and angles in similar shapes, areas of similar shapes, volume of similar shapes, congruent triangles, proof of congruent triangles	• Algebra - Representing solutions of equations and inequalities - Form and solve one and two-step equations, form and solve one and two-step inequalities, show inequality solutions on a number line, set notation, draw straight-line graph, represent solutions to	• Geometry - Angles and bearing - Cardinal directions, scale diagrams, understand bearings, measure and read bearings, calculate bearings using angle rules, Pythagoras and trigonometry, solve bearings problems using the sine and cosine rule	• Ratio and proportion - Ratios and fractions - Compare quantities using ratio, share ina ratio, link ratio and graphs, currency conversion problems, link ratio and scales, interpret ratios in the form 1:n and n:1, best buy problems, combine a set of ratios, link ratio and algebra, ratio in area	• Statistics - Collecting, representing and interpreting data - Understand populations and samples, stratified sample, types of data, frequency tables, frequency polygons, two-way tables, line and bar charts, pie charts, charts and graphs criticism, histograms. averages from a list and a table, time series graph, stem and leaf	Number - Indices and roots - Square and cube numbers, powers and roots, standard form, zero power and negative indices, powers of powers, fractional indices, calculating with numbers in stand form Algebra -
	• Geometry - Trigonometry - Explore ratio in right-angles triangles, label a right-angles triangles, use the sine, cosine and tangent to find missing sides and angles, key trigonometric angles, Pythagoras Theorem, sine rule, cosine rule, area of non-right	inequalities on a graph, form and solve equations and inequalities with unknowns on both sides, factorise quadratic equations • Algebra - Simultaneous equations - Solve simultaneous equations by	• Geometry - Working with circles - Label parts of a circle, fractional parts of a circle, length of an arc, area of a sector, circle theorems, volume of cylinder and cone, volume of a sphere, surface area of cylinder and cone, solve area and volume	Number - Percentages and interest Convert between FDP, percentages of amounts, percentage increase and decrease, simple and compound interest, repeated percentage change, solve problems with growth and decay,	diagram, cumulative frequency diagram, box plots, comparing distributions, scatter graphs, lines of best fit, extrapolation • Number - Non- calculator methods - Four rules of fraction arithmetic, exact answers, rational and irrational numbers, surds, rounding,	Manipulating expressions - Add and subtract simple and complex algebraic fractions, multiply and divide simple and complex algebraic fractions, form and solve equations and inequalities with fractions including algebraic fractions, represent numbers

angled triangles, trigonometry in 3D shapes	substitution, adding, subtracting, using graphs, adjusting one or both equations, form simultaneous equations from information, solve simultaneous equations	problems involving similar shapes • Geometry - Vectors - Understand and	iterative processes, solve problems using FDP • Probability - Probability - Add, Subtract, multiply	estimating, limits of accuracy, upper and lower bounds, financial maths problems, multi-step problems	algebraically, algebraic proofs
	where one is a quadratic using graphs or algebraically, solve simultaneous equations with a third unknown	represent vectors, vector notation, vectors multiplied by a scalar, addition and subtraction of vectors, vector journeys, quadrilaterals using vectors, parallel vectors, co-linear points using vectors, vector proofs	and divide fractions, find probabilities from tables, Venn diagrams and frequency trees, sample spaces, tree diagrams, conditional probability (tree diagrams, Venn diagrams and two-way tables)	 Algebra - Types of number and sequences Know the difference between factors and multiples, prime numbers and expressing numbers as a product of their primes, arithmetic sequences, geometric sequences, sequences involving surds, 	
				find the nth term for linear and quadratic sequences	

Year 10

Foundation

- Geometry Congruence,
 similarity and
 enlargement
- Enlarge by positive / fractional scale factor, sides and angles in similar shapes, congruent triangles
 - <u>Geometry -</u> <u>Trigonometry</u>
- Explore ratio in rightangles triangles, label a right-angles triangles, use the sine, cosine and tangent to find missing sides and angles, key trigonometric angles, Pythagoras Theorem

Foundation

- Algebra - Representing solutions of equations and inequalities
- Form and solve one and two-step equations, form and solve one and two-step inequalities, show inequality solutions on a number line, draw straight-line graph, form and solve equations and inequalities with unknowns on both sides
 - Algebra Simultaneous equations
- Solve simultaneous equations by substitution, adding, subtracting, using graphs, adjusting one or both equations, form simultaneous equations from information

Foundation

- Geometry -Angles and bearing
- Cardinal directions, scale diagrams, understand bearings, measure and read bearings, calculate bearings using angle rules, Pythagoras and trigonometry
 - Geometry -Working with circles
- Label parts of a circle, fractional parts of a circle, length of an arc, area of a sector, volume of cylinder and cone, volume of a sphere, surface area of cylinder and cone

• <u>Geometry -</u> Vectors

- Understand and represent vectors, vector notation, vectors multiplied by a scalar, addition and subtraction of vectors

Foundation

- Ratio and proportion - Ratios and fractions
- Compare quantities using ratio, share ina ratio, link ratio and graphs, currency conversion problems, link ratio and scales, interpret ratios in the form 1:n and n:1, best buy problems, combine a set of ratios, link ratio and algebra
 - Number - Percentages and interest
- Convert between FDP, percentages of amounts, percentage increase and decrease, simple and compound interest, repeated percentage change, solve problems with growth and decay, solve problems using FDP

Probability -Probability

- Add, Subtract, multiply and divide fractions, find probabilities from tables, Venn diagrams and frequency trees, sample spaces, tree diagrams

Foundation

- Statistics - Collecting, representing and interpreting data
- Understand populations and samples, types of data, frequency tables, frequency polygons, two-way tables, line and bar charts, pie charts, charts and graphs criticism, averages from a list and a table, time series graph, stem and leaf diagram, comparing distributions, scatter graphs, lines of best fit, extrapolation
 - Number Noncalculator methods
- Four rules of fraction arithmetic, exact answers, rounding, estimating, limits of accuracy, financial maths problems, multi step problems
 - Algebra Types of number and sequences
- Know the difference between factors and multiples, prime numbers and expressing numbers as a product of their primes, arithmetic sequences, geometric sequences, find the nth term for linear sequences

Foundation

- Number Indices and roots
- Square and cube numbers, powers and roots, standard form, zero power and negative indices, powers of powers, calculating with numbers in stand form
 - Algebra -Manipulating expressions
- Form and solve equations and inequalities with fractions, represent numbers algebraically, algebraic proofs

Half term	02.09.25 - 23.10.25	03.11.25 - 19.12.25	05.01.26 - 13.02.26	23.02.26 - 26.03.26	13.04.26 - 22.05.26	01.06.26 - 17.07.26
	Autumn 1 - 8 weeks	Autumn 2 - 7 weeks	Spring 1 - 6 weeks	Spring 2 - 5 weeks	Summer 1 - 5 weeks	Summer 2 - 7 weeks
			Maths			
	Higher	Higher	Higher	Higher	Revision PLC bas	sed
Year 11 H	 Algebra - Gradients and lines Equations of lines parallel to the axis, plot straight line graphs using y=mx+c, find the equation of a straight line graph, find the equation of a line given one point and a gradient of two points Algebra - Non-linear graphs Plot and read from quadratic, cubic and reciprocal graphs, recognise graphs shapes, identify roots and intercepts of quadratics, exponential graphs, equations of a centre circle, equations of tangents to a curve Algebra - Using graphs Reflect shapes, conversion graphs, real life straight line graphs, distance/time graphs, inverse proportion, solutions to equations using graphs, area under a curve on a graph 	 Algebra - Expanding and factorising Expand and factorise with a single bracket, expand binomials, factorise quadratic expressions, solve equations equal to 0, complete the square, use the quadratic formula Algebra - Changing the subject Solve equations and inequalities, change the subject of simple and complex formula, change the subject where the subject appears more than once, solve by iteration Algebra - Functions Function machines, substitution, function notation, composite functions, inverse functions, quadratic functions, quadratic inequalities, trigonometric functions 	 Ratio and proportion Multiplicative reasoning Direct proportion, pressure and density, inverse proportion inverse proportion equations, ratio problems Geometry -	• Geometry - Transforming and constructing - Line symmetry and reflection, translation of shapes, enlargements of shapes, negative enlargements of shapes, invariant points and lines, constructions using protractor/compasses/ruler, loci problems, trigonometrical graphs, sketch and identify translations of graphs of given functions • Listing and describing - Organised lists, product rule for counting, sample space and probability, Venn diagrams, plans and elevations, compare distributions, scatter graphs • Show that - Number, algebra, shape, angles, data, vectors, congruent triangles, proof with congruent triangles	 Area Volume Circles FDP Angles Pythagoras Transformation Directed number 	

Foundation

• <u>Algebra - Gradients</u> and lines

- Equations of lines parallel to the axis, plot straight line graphs using y=mx+c, find the equation of a straight line graph, find the equation of a line given one point and a gradient of two points

• Algebra - Non-linear graphs

- Plot and read from quadratic, cubic and reciprocal graphs, recognise graphs shapes, identify roots and intercepts of quadratics, exponential graphs, equations of a centre circle, equations of tangents to a curve

• Algebra - Using graphs

- Reflect shapes, conversion graphs, real life straight line graphs, distance/time graphs, inverse proportion, solutions to equations using graphs, area under a curve on a graph

Foundation

Algebra - Expanding and factorising

- Expand and factorise with a single bracket, expand binomials, factorise quadratic expressions, solve equations equal to 0, complete the square, use the quadratic formula

Algebra - Changing the subject

- Solve equations and inequalities, change the subject of simple and complex formula, change the subject where the subject appears more than once, solve by iteration

• Algebra - Functions

- Function machines, substitution, function notation, composite functions, inverse functions, quadratic functions, quadratic inequalities, trigonometric functions

Foundation

Ratio and proportion Multiplicative reasoning

- Direct proportion, pressure and density, inverse proportion, inverse proportion equations, ratio problems

Geometry -Geometric reasoning

- Angles at a point, angles in parallel lines, exterior and interior angles of polygons, geometric facts, vectors, circle theorems, Pythagoras Theorem using trigonometric ratios

Algebra - Algebraic reasoning

- Find the nth term of linear and quadratic sequences, simultaneous equations, simultaneous equations with one quadratic, algebraic proof, inequalities with two variables

Foundation

Geometry - Transforming and constructing

- Line symmetry and reflection, translation of shapes, enlargements of shapes, negative enlargements of shapes, invariant points and lines, constructions using protractor/compasses/ruler, loci problems, trigonometric graphs, sketch and identify translations of graphs of given functions

Listing and describing

- Organised lists, product rule for counting, sample space and probability, Venn diagrams, plans and elevations, compare distributions, scatter graphs

• Show that....

- Number, algebra, shape, angles, data, vectors, congruent triangles, proof with congruent triangles

Revision PLC based

- Area
- Volume
- Circles
- FDP
- Angles
- Pythagoras
- Transformations
- Directed number

Half term	02.09.25 - 23.10.25	03.11.25 - 19.12.25	05.01.26 - 13.02.26	23.02.26 - 26.03.26	13.04.26 - 22.05.26	01.06.26 - 17.07.26
	Autumn 1 - 8 weeks	Autumn 2 - 7 weeks	Spring 1 - 6 weeks	Spring 2 - 5 weeks	Summer 1 - 5 weeks	Summer 2 - 7 weeks
			Stati	stics		
Year 11		lations pyramids,	correlation coefficient Time series	elation, line of best fit, est fit, Spearman's rank s, trend lines, variations averages	Index numbers - Index numbers, RPI, CF numbers, rates of chan Probability distributions - Binomial distributions, standardised distribution and control charts Revision	normal distributions,
	 Averages, standard of outliers, skewness, experience 	• •	diagrams, Venn diagrar tree diagrams, conditio	ns, independent events, onal probability		

Half term	02.09.25 - 23.10.25	05.01.26 - 13.02.26	23.02.26 - 26.03.26	13.04.26 - 22.05.26	01.06.26 - 17.07.26
	Autumn 1 - 8 weeks Autumn 2 - 7 weeks	Spring 1 - 6 weeks	Spring 2 - 5 weeks	Summer 1 - 5 weeks	Summer 2 - 7 weeks
		Core N	Naths		
Year 12	Paper 1 - Key skills - Fermi estimation - Data and sampling - Fair representation - Measures of spread - Box and whisker plots - Cumulative frequency graphs - Histograms - Income Tax/ NI - AER - APR Paper 2 - Key Skills - Normal distribution - Calculating probabilities - Estimate of the mean - The sample mean - Confidence intervals - Critical analysis - Selectivity of data - Sampling and trialling - Misleading data	Paper 1 - Mortgages - Student loans - Exchange rates/ VAT - Standard form - Estimation techniques (scaling/subdividing/sta - Fermi Estimation Paper 2 - Lines of best fit - Regression lines - PMCC - Product Moment Coefficient - Critical analysis - Critical analysis of mode	Correlation	Paper 1 - Revision Analysis of data Finance Estimation Paper 2 - Revision Critical analysis of data and Normal distribution Probability and estimation Correlation Regression	

Half term	02.09.25 - 23.10.25	05.01.26 - 13.02.26	23.02.26 - 26.03.26	13.04.26 - 22.05.26	01.06.26 - 17.07.26
	Autumn 1 - 8 weeks Autumn 2 - 7 weeks	Spring 1 - 6 weeks	Spring 2 - 5 weeks	Summer 1 - 5 weeks	Summer 2 - 7 weeks
		A Le	evel		
Year 12	Pure - Algebra and functions - Coordinate geometry in the (x,y) plane - Further algebra - Trigonometry Statistics - Statistical sampling - Data presentation and interpretation - Probability	Pure - Vectors - Differentiation - Integration Statistics - Statistical distributions - Statistical hypothesis to Mechanics - Quantities and units in - Kinematics 1 - Forces and Newton's La	esting	Pure - Exponentials and logar - Proof - Algebraic and partial form Mechanics - Forces and Newton's Later Kinematics 2	ractions

Half term	02.09.25 - 23.10.25	03.11.25 - 19.12.25	05.01.26 - 13.02.26	23.02.26 - 26.03.26	13.04.26 - 22.05.26	01.06.26 - 17.07.26
	Autumn 1 - 8 weeks	Autumn 2 - 7 weeks	Spring 1 - 6 weeks	Spring 2 - 5 weeks	Summer 1 - 5 weeks	Summer 2 - 7 weeks
			A Le	evel		
Year 13	Pure - Functions and mode - Series and sequence - The binomial theore - Trigonometry - Parametric equation Statistics - Regression and corre - Probability Mechanics - Moments - Forces at any angle	ers erm ers	Pure - Differentiation - Numerical methods for - Integration Statistics - The Normal distribution Mechanics - Applications of kinemate - Applications of forces	1	Pure - Vectors (3D) Statistics - The Normal distribution Mechanics - Further kinematics Revision	n