

**Curriculum Intent:** Pupils will gain the understanding and knowledge that is required to inspire a passion in problem-solving and mathematics, enabling them to enter the workplace with resilience and transferrable skills.

**Curriculum Rationale:** The key strands of mathematics run through each year group, Number, Ratio and Proportion, Shape and Space, Geometry and Statistics and Probability in order to create a rounded mathematician. Pupil's knowledge is built upon their prior learning during each academic year, allowing previous concepts to be recalled and applied to a new concept. Pupils can continue their studies into Key Stage 5 by studying A-level Mathematics.

**What makes the Bloxwich experience unique:** You will study a broad curriculum that will enable you to develop your fluency, reasoning and problem-solving skills. You will also have the opportunity to participate in numeracy weeks where you will have 'hands on' experience in real-life Maths.

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<b>7</b>	<b>Unit 1:</b> Sequences <b>Unit 2:</b> Use and understand algebraic notation <b>Unit 3:</b> Equality and Equivalence	<b>Unit 4:</b> Place value and ordering integers and decimals <b>Unit 5:</b> Fractions, decimals and percentage equivalence	<b>Unit 6:</b> Problem solving with addition and subtraction <b>Unit 7:</b> Problem solving with multiplication and division <b>Unit 8:</b> Fractions and Percentages of amounts	<b>Unit 9:</b> Operations and Equations with directed numbers <b>Unit 10:</b> Addition and Subtraction of fractions	<b>Unit 11:</b> Constructing and Measuring and using geometric notation <b>Unit 12:</b> Developing geometric reasoning	<b>Unit 13:</b> Sets and Probability <b>Unit 14:</b> Primes and Proof
<b>8</b>	<b>Unit 1:</b> Ratio and Scale <b>Unit 2:</b> Multiplicative Change <b>Unit 3:</b> Multiplying and dividing fractions	<b>Unit 4:</b> Working in the cartesian plane <b>Unit 5:</b> Collecting and representing data <b>Unit 6:</b> Tables	<b>Unit 7:</b> Brackets, equations and Inequalities <b>Unit 8:</b> Sequences <b>Unit 9:</b> Indices	<b>Unit 10:</b> Fractions and Percentages <b>Unit 11:</b> Standard Form <b>Unit 12:</b> Number Sense	<b>Unit 13:</b> Angles in parallel and polygons <b>Unit 14:</b> Area of trapezia and circles	<b>Unit 15:</b> Line symmetry and reflection <b>Unit 16:</b> The data handling cycle <b>Unit 17:</b> Measures of location
<b>9</b>	<b>Unit 1:</b> Straight line graphs <b>Unit 2:</b> Forming and Solving equations <b>Unit 3:</b> Testing conjectures	<b>Unit 3:</b> Testing conjectures <b>Unit 4:</b> Three dimensional shapes <b>Unit 5:</b> Constructions and Congruency	<b>Unit 6:</b> Numbers <b>Unit 7:</b> Using percentages <b>Unit 8:</b> Deduction	<b>Unit 8:</b> Deduction <b>Unit 9:</b> Rotation and Translation <b>Unit 10:</b> Pythagoras Theorem	<b>Unit 11:</b> Enlargement and Similarity <b>Unit 12:</b> Solving ratio and proportion problems <b>Unit 13:</b> Rates	<b>Unit 14:</b> Probability <b>Unit 15:</b> Algebraic Representation

## Foundation

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<b>10F</b>	<b>Unit 1a:</b> Integers and place value <b>Unit 1b:</b> Decimals <b>Unit 1c:</b> Indices, powers and roots <b>Unit 1d:</b> Factors, multiples and primes <b>Unit 2a &amp; b:</b> Expressions and substitution	<b>Unit 3a:</b> Tables, charts and graphs <b>Unit 3b:</b> Pie charts <b>Unit 3c:</b> Scatter graphs <b>Unit 4a:</b> Fraction, decimals and percentages	<b>Unit 4b:</b> Percentages <b>Unit 5a:</b> Equations and inequalities <b>Unit 5b:</b> Sequences	<b>Unit 6a:</b> Properties of shapes, parallel lines and angle facts <b>Unit 6b:</b> Interior and exterior angles of polygons	<b>Unit 7:</b> Sampling and averages <b>Unit 8:</b> Perimeter, area and volume <b>Unit 9a:</b> Real-life graphs	<b>Unit 9b:</b> Straight-line graphs <b>Unit 10:</b> Transformations <b>Unit 15a:</b> Plans and elevations
<b>11F</b>	<b>Unit 11a:</b> Ratio <b>Unit 11b:</b> Proportion <b>Unit 12:</b> Right-angles triangles: Pythagoras' theorem and trigonometry <b>Unit 13:</b> Probability <b>Unit 14:</b> Multiplicative reasoning	<b>Unit 15b:</b> Constructions, loci and bearings <b>Unit 16a:</b> Quadratic equations <b>Unit 16b:</b> Quadratic graphs <b>Unit 17:</b> Circles, cylinders, cones and spheres	<b>Unit 18a:</b> Fractions and reciprocals <b>Unit 18b:</b> Indices and Standard form <b>Unit 19a:</b> Similarity and congruence in 2D <b>Unit 19b:</b> Vectors	<b>Unit 20:</b> Rearranging equations, cubic graphs and reciprocal graphs and simultaneous equations	<b>Revision and exam practice</b>	<b>Revision and exam practice</b>

## Higher

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<b>10H</b>	<b>Unit 1a:</b> Calculations, checking and rounding <b>Unit 1b:</b> Indices, roots, reciprocals and BIDMAS <b>Unit 1c:</b> Factors, multiples, primes, standard form and surds <b>Unit 2a:</b> Expressions and equations <b>Unit 2b:</b> Sequences	<b>Unit 3a:</b> Averages and range <b>Unit 3b:</b> Representing and interpreting scatter graphs <b>Unit 4a:</b> Fractions and percentages	<b>Unit 4b:</b> Ratio and proportion <b>Unit 5a:</b> Polygons, angles and parallel lines <b>Unit 5b:</b> Pythagoras' theorem and trigonometry <b>Unit 6a:</b> Real-life graphs	<b>Unit 6b:</b> Linear graphs and coordinate geometry <b>Unit 6c:</b> Quadratics, Cubics and graphs	<b>Unit 7a:</b> Perimeter, area and circles <b>Unit 7b:</b> 3D forms and volume, cylinders, cones and spheres <b>Unit 7c:</b> Accuracy and bounds <b>Unit 8a:</b> Transformations	<b>Unit 8b:</b> Constructions, loci and bearings <b>Unit 9a:</b> Solving quadratics and simultaneous equations
<b>11H</b>	<b>Unit 9b:</b> Inequalities <b>Unit 10:</b> Probability <b>Unit 11:</b> Multiplicative reasoning <b>Unit 12:</b> Similarity and congruence in 2D and 3D	<b>Unit 13a:</b> Graphs of trigonometric functions <b>Unit 13b:</b> Further trigonometry <b>Unit 14a:</b> Collecting data <b>Unit 14b:</b> Cumulative frequency, box plots and histograms	<b>Unit 15:</b> Quadratics, Cubics and circles <b>Unit 16a:</b> Circle theorems <b>Unit 16b:</b> Circle geometry <b>Unit 17:</b> Changing the subject of a formula, algebraic fractions, rationalising surds and proof	<b>Unit 18:</b> Vectors and geometric proof <b>Unit 19a:</b> Reciprocal and exponential graphs, gradient and area under graphs <b>Unit 19b:</b> Direct and inverse proportion	<b>Revision and exam practice</b>	<b>Revision and exam practice</b>

Pure

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<b>12 Pure</b>	<b>Unit 1:</b> Algebraic expressions <b>Unit 2:</b> Quadratics <b>Unit 3:</b> Equations and inequalities <b>Unit 4:</b> Graphs and transformations <b>Unit 5:</b> Straight line graphs	<b>Unit 6:</b> Circles <b>Unit 7:</b> Algebraic methods <b>Unit 8:</b> The binomial expansion	<b>Unit 9:</b> Trigonometric ratios <b>Unit 10:</b> Trigonometric identities and equations	<b>Unit 11:</b> Vectors <b>Unit 12:</b> Differentiation	<b>Unit 13:</b> Integration <b>Unit 14:</b> Exponentials and logarithms	Year 13 <b>Unit 1:</b> Algebraic methods <b>Unit 2:</b> Functions and graphs
<b>13 Pure</b>	<b>Unit 2:</b> Functions and graphs <b>Unit 3:</b> Sequences and series <b>Unit 4:</b> Binomial expansion	<b>Unit 5:</b> Radians <b>Unit 6:</b> Trigonometric functions <b>Unit 7:</b> Trigonometry and modelling	<b>Unit 8:</b> Parametric equations <b>Unit 9:</b> Differentiation	<b>Unit 10:</b> Numerical methods <b>Unit 11:</b> Integration	<b>Unit 11:</b> Integration <b>Unit 12:</b> Vectors Revision and exam practice	<b>Revision and exam practice</b>

Applied

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<b>12 Applied</b>	<b>Unit 1:</b> Data collection <b>Unit 2:</b> Measures of location	<b>Unit 3:</b> Representations of data <b>Unit 4:</b> Correlation <b>Unit 5:</b> Probability	<b>Unit 6:</b> Statistical distribution <b>Unit 7:</b> Hypothesis testing	<b>Unit 8:</b> Modelling in Mechanics <b>Unit 9:</b> Constant acceleration	<b>Unit 10:</b> Forces and Motion <b>Unit 11:</b> Variable acceleration	
<b>13 Applied</b>	<b>Unit 1:</b> Regression, correlation and hypothesis testing <b>Unit 2:</b> Conditional probability	<b>Unit 3:</b> The Normal distribution <b>Unit 4:</b> Moments	<b>Unit 5:</b> Forces and friction <b>Unit 6:</b> Projectiles	<b>Unit 7:</b> Applications of forces	<b>Unit 8:</b> Further kinematics	<b>Revision and exam practice</b>