

Year 10 Foundation Curriculum Overview [2026-2027]
Mathematics

Autumn Term

Autumn Term	Knowledge & Understanding			Literacy Skills	Employability Skills	Assessment Opportunities
	Composites	Components [KEY concepts & subject specific vocab]	Formal Retrieval [if any]	Opportunities for developing literacy skills	[if any]	
HT1	Algebraic Manipulation	• Substitution • Collect like terms • Simplify expressions • Addition and subtraction laws for indices • Powers of powers • Expand a single bracket • Factorise into a single bracket	• Retrieval in class starter • Prior knowledge whiteboard questions • End of topic unit test intervention	• Key vocabulary • True and False Tasks • Questioning Tasks • Problem Solving Tasks • Key words: Expression, Variable, Formula, Substitute, Like/Unlike terms, Coefficient, Simplify, Power, Base, Index, Indices, Expand, Factorise, Highest Common Factor (HCF)	• Personal skills - Thinking and problem solving - Working together and communicating • Fundamental skills - Using numbers effectively - Using language effectively • Careers: Data Science, Finance, Engineering, Computer Science	• Plenary True and False Tasks • Peer and self-assessment • Feedback and reflective practise • End of topic tests • End of term tests

	Equations, Inequalities & Formulae	- Solve equations - Solve fractional equations - Solve equations with unknowns on both sides - Understand inequalities - Solve inequalities - Change the subject of a simple formula - Change the subject of a known formula - Change the subject of a complex formula (E)	- Retrieval in class starter - Prior knowledge whiteboard questions - End of topic unit test intervention	- Key vocabulary - True and False Tasks - Questioning Tasks - Problem Solving Tasks - Keywords: Equation, Inverse, Expression, Unknown, Solution, Coefficient, Integer, Inequality, Satisfy, Compound, Solve, Formula, Subject, Rearrange, Variable	- Personal skills - Thinking and problem solving - Working together and communicating - Fundamental skills - Using numbers effectively - Using language effectively - Careers: Engineering, architecture, planning	- Plenary True and False Tasks - Peer and self-assessment - Feedback and reflective practise - End of topic tests - End of term tests
	Quadratic expressions and equations	- Expand double brackets - Factorise quadratic expressions (positive only) - Factorise quadratic expressions - Difference of two squares (E) - Solve quadratic equations equal to 0 - Solve quadratic equations by factorisation - Quadratic graphs of the form $y=ax^2+bx+c$	- Retrieval in class starter - Prior knowledge whiteboard questions - End of topic unit test intervention	- Key vocabulary - True and False Tasks - Questioning Tasks - Problem Solving Tasks - Key words: Variable, Solve, Solution, Equation, Expression, Expand, Quadratic, Factorise	- Personal skills - Thinking and problem solving - Working together and communicating - Fundamental skills - Using numbers effectively - Using language effectively	- Plenary True and False Tasks - Peer and self-assessment - Feedback and reflective practice - End of topic tests - End of term tests

					• Careers: Military, Law Enforcement, Engineering, Architecture and planning, Actuaries, Statisticians, Game Development, Computer Graphics, Astronomy	
	Percentages	• Percentage of an amount • Percentage increase and decrease • Repeated percentage change (E) • Express one number as a fraction or a percentage of another • Express a change as a percentage • Find the original value after a percentage change • Simple interest • Compound interest (E) • Choose appropriate methods to solve percentage problems	• Retrieval in class starter • Prior knowledge whiteboard questions • End of topic unit test intervention	• Key vocabulary • True and False Tasks • Problem Solving Tasks • Questioning Tasks • Key words: Fraction, Decimal Percentage, Equivalent, Convert	• Personal skills - Thinking and problem solving - Working together and communicating • Fundamental skills - Using numbers effectively - Using language effectively • Careers: Business, finance, taxation, sports, nutrition, medicine	• Plenary True and False Tasks • Peer and self-assessment • Feedback and reflective practise • End of topic tests • End of term tests

HT2	Ratio and Scale	• Equivalent ratios • Share in a ratio (total given) • Share in a ratio (part or difference given) • Link ratios and fractions • Combine a set of ratios (E) • Share in a ratio (algebraically) (E) • Ratios and scales	• Retrieval in class starter • Prior knowledge whiteboard questions • End of topic unit test intervention	• Key vocabulary • True and False Tasks • Questioning Tasks • Problem Solving Tasks • Key words: Ratio, Simplest Form, Convert, Unit, Equivalent	• Personal skills - Thinking and problem solving - Working together and communicating • Fundamental skills - Using numbers effectively - Using language effectively • Careers: Cheffing and catering industry, Business, Architecture, Surveyor, Finance, Currency exchange, Hairdressers, Medical	• Plenary True and False Tasks • Peer and self-assessment • Feedback and reflective practise • End of topic tests • End of term tests
	Work with Fractions	• Fraction of an amount • Increase or decrease an amount by a fraction • Use a fraction to find the whole • Equivalent fractions and mixed numbers • Add and subtract fractions	• Retrieval in class starter • Prior knowledge whiteboard questions	• Key vocabulary • True and False Tasks • Questioning Tasks • Problem Solving Tasks • Key words: Fraction,	• Personal skills - Thinking and problem solving - Working together and communicating	• Plenary True and False Tasks • Peer and self-assessment • Feedback and

		• Multiply fractions • Divide fractions • Solve problems with fractions	• End of topic unit test intervention	Equivalent, Convert, Simplify, Mixed Number, Improper, Proper	• Fundamental skills - Using numbers effectively - Using language effectively • Careers: Engineering, Healthcare, Finance, Science, Catering	reflective practise • End of topic tests • End of term tests
	Non-Calculator Methods	• Place value for integers and decimals • Compare and order numbers • Add and subtract integers and decimals • Multiply and divide integers and decimals • Four operations with directed number • Order of operations • Related calculations • Solve multi-step problems	• Retrieval in class starter • Prior knowledge whiteboard questions • End of Topic Unit Test • Intervention lessons using knowledge organiser material	• Key vocabulary • True and False Tasks • Questioning Tasks • Problem Solving Tasks • Key words: Add, Subtract, Balance, Adjust Credit/Debit, Profit/Loss	• Personal skills - Thinking and problem solving - Working together and communicating • Fundamental skills - Using numbers effectively - Using language effectively • Life skills • Money management	• Plenary True and False Tasks • Peer and self-assessment • Feedback and reflective practise • End of topic tests • End of term tests

Spring term						
Spring Term	Knowledge & Understanding			Literacy Skills	Employability Skills	Assessment Opportunities
	Composites	Components [KEY concepts & subject specific vocab]	Formal Retrieval [if any]	Opportunities for developing literacy skills	[if any]	
HT3	Straight-line Graphs	- Plot straight line graphs - Find solutions to equations using straight line graphs - Explore gradients $y = mx + c$ - Find the equation of a line from a graph (E) - Find the midpoint of a line segment - Equation of a straight-line graph given one point and a gradient - Equation of a straight-line graph given two points (E) - Real-life straight-line graphs (E)	- Retrieval in class starter - Prior knowledge whiteboard questions - End of topic unit test intervention	- Key vocabulary - True and False Tasks - Questioning Tasks - Problem Solving Tasks - Key words: Gradient, Y-intercept, Solution, Substitute, Midpoint	- Personal skills - Thinking and problem solving - Working together and communicating - Fundamental skills - Using numbers effectively - Using language effectively - Careers: Business, Finance, Research, Medicine, Architecture	- Plenary True and False Tasks - Peer and self-assessment - Feedback and reflective practise - End of topic tests - End of term tests
	Probability	- Find the probability of a single event - Use the property that probabilities sum to 1 - List outcomes - Relative frequency - Sample spaces for 1 or more events	- Retrieval in class starter - Prior knowledge whiteboard questions - End of topic unit test intervention	- Key vocabulary - True and False Tasks - Questioning Tasks - Problem Solving Tasks - Key words: Numerator,	Personal skills - Thinking and problem solving - Working together and communicating	- Plenary True and False Tasks - Peer and self-assessment - Feedback and

		- Two-way tables - Frequency trees - Independent events - Tree diagrams for independent events - Tree diagrams for dependent events (E)		Denominator, Exact Value, LCM, Simplest Form, Outcome, Event, Frequency	- Fundamental skills - Using numbers effectively - Using language effectively - Careers: Finance, Meteorology, Sports, Insurance	reflective practise - End of topic tests - End of term tests
	Rounding and Estimation	- Round to decimal places - Round to significant figures - Estimate answers to calculations - Use of a calculator - Error intervals (including truncation) (E)	- Retrieval in class starter - Prior knowledge whiteboard questions - End of topic unit test intervention	- Key vocabulary - True and False Tasks - Questioning Tasks - Problem Solving Tasks - Key words: Round, Estimate, Significant Figure, Decimal place, Digit, Truncate	- Personal skills - Thinking and problem solving - Working together and communicating - Fundamental skills - Using numbers effectively - Using language effectively - Careers: Gardeners, caterers, builders, joiners, shopkeepers and engineers	- Plenary True and False Tasks - Peer and self-assessment - Feedback and reflective practise - End of topic tests - End of term tests

HT4	Perimeter Area and Volume	• Name 2-D and 3-D shapes • Perimeter of a 2-D shape • Area of a 2-D shape • Area of a compound shape • Recognise and label parts of a circle • Circumference of a circle • Area of a circle • Volume of a prism • Nets • Surface area of a prism	• Retrieval in class starter • Prior knowledge whiteboard questions • End of topic unit test intervention	• Key vocabulary • True and False Tasks • Questioning Tasks • Problem Solving Tasks • Key words: Compound, Area, Perimeter, Circumference, Volume, Prism	• Personal skills - Thinking and problem solving - Working together and communicating • Fundamental skills - Using numbers effectively - Using language effectively • Careers: Construction, Plumbing, Architect, Surveyor, Engineer	• Plenary True and False Tasks • Peer and self-assessment • Feedback and reflective practise • End of topic tests • End of term tests
	Interpret and Represent Data	• Averages and range • Averages from an ungrouped frequency table • Mean from a grouped frequency table • Averages from a grouped frequency table • Use data to compare distributions (E) • Types of data • Sampling • Scatter graphs	• Retrieval in class starter • Prior knowledge whiteboard questions • End of topic unit test intervention	• Key vocabulary • True and False Tasks • Questioning Tasks • Problem Solving Tasks • Key words: Population, Sample Representative, Biased, Random, Quantitative, Qualitative,	• Personal skills - Thinking and problem solving - Working together and communicating • Fundamental skills - Using numbers effectively	• Plenary True and False Tasks • Peer and self-assessment • Feedback and reflective practise • End of topic tests

		Interpolation and extrapolation (E)		Continuous, Discrete	- Using language effectively - Careers: Data Analyst, Statistician, Business, Finance	End of term tests
	Non-linear graphs	- Quadratic graphs - Intercepts and roots of quadratic graphs (E) - Cubic graphs - Approximate solutions to equations using graphs (E)	- Retrieval in class starterPrior knowledge whiteboard questions - End of topic unit test intervention	- Key vocabulary - True and False Tasks - Questioning Tasks - Problem Solving Tasks - Key words: Variable, Solve, Solution, Equation, Expression, Expand, Quadratic, Factorise	- Personal skills - Thinking and problem solving - Working together and communicating - Fundamental skills - Using numbers effectively - Using language effectively - Careers: Military and Law Enforcement, Engineering, Architecture and planning, Actuaries, Statisticians, Game Development, Computer Graphics, Astronomy	- Plenary True and False Tasks - Peer and self-assessment - Feedback and reflective practice - End of topic tests - End of term tests

Summer term						
Spring Term	Knowledge & Understanding			Literacy Skills	Employability Skills [if any]	Assessment Opportunities
	Composite	Components [KEY concepts & subject specific vocab]	Formal Retrieval [if any]	Opportunities for developing literacy skills		
HT5	Angles	- Angles around a point, on a straight line and vertically opposite - Angles in a triangle - Angles in a quadrilateral - Exterior angles of a polygon - Interior angles of a polygon - Solve problems with angles in polygons (E) - Alternate and corresponding angles - Alternate, corresponding and co-interior angles - Prove geometric facts (E)	- Retrieval in class starter - Prior knowledge whiteboard questions - End of topic unit test intervention	- Key vocabulary - True and False Tasks - Questioning Tasks - Problem Solving Tasks - Key words: Angle, Isosceles, Quadrilateral, Polygon, Alternate, Corresponding, Co-interior	- Personal skills - Thinking and problem solving - Working together and communicating - Fundamental skills - Using numbers effectively - Using language effectively - Careers: Engineers, Architects, Athletes, Carpenters, Artists, Doctors	- Plenary True and False Tasks - Peer and self-assessment - Feedback and reflective practise - End of topic tests - End of term tests

Mock Exams						
	Graphs and Diagrams	• Pictograms • Line and bar charts • Dual and composite bar charts • Draw pie charts • Interpret pie charts • Time-series graphs • Frequency polygons • Stem-and-leaf diagrams	• Retrieval in class starter • Prior knowledge whiteboard questions • End of topic unit test intervention	• Key vocabulary • True and False Tasks • Questioning Tasks • Problem Solving Tasks • Key words: Composite, Time-series, Frequency, Proportion	• Personal skills - Thinking and problem solving - Working together and communicating • Fundamental skills - Using numbers effectively - Using language effectively • Careers: Statistician, Business, Finance, Data Analyst	• Plenary True and False Tasks • Peer and self-assessment • Feedback and reflective practise • End of topic tests • End of term tests
	Vectors	• Understand and represent vectors • Vector notation • Translate by a vector • Vectors multiplied by a scalar • Add vectors • Add and subtract vectors • Solve problems with vectors (E)	• Retrieval in class starter • Prior knowledge whiteboard questions • End of topic unit test intervention	• Key vocabulary • True and False Tasks • Questioning Tasks • Problem Solving Tasks • Key words: Column vector, Direction, Scalar, Size, Magnitude	• Personal skills - Thinking and problem solving - Working together and communicating • Fundamental skills - Using numbers effectively	• Plenary True and False Tasks • Peer and self-assessment • Feedback and reflective practise • End of topic tests

					- Using language effectively • Careers: Engineering, architecture, planning	• End of term tests
HT6	Factors and Powers	• Factors, multiples and primes • Prime factorisation • HCF and LCM • Square and cube numbers • Powers and roots • Negative indices • Irrational numbers and surds • Simplify expressions with surds (E) • Expand brackets with surds (E)	• Retrieval in class starter • Prior knowledge whiteboard questions • End of topic unit test intervention	• Key vocabulary • True and False Tasks • Questioning Tasks • Problem Solving Tasks • Key words: Factor, Multiple, Highest Common Factor, Lowest Common Multiple, Powers, Indices, Root, Irrational, Rational, Surd, Expand	• Personal skills - Thinking and problem solving - Working together and communicating • Fundamental skills - Using numbers effectively - Using language effectively • Careers: Finance, Geography, Science, Engineering, Golden Ratio, Paper	• Plenary True and False Tasks • Peer and self-assessment • Feedback and reflective practise • End of topic tests • End of term tests
	Pythagoras' Theorem and Trigonometry	• Pythagoras' theorem (find the hypotenuse) • Pythagoras' theorem (find any side)	• Retrieval in class starter	• Key vocabulary • True and False Tasks • Questioning Tasks	• Personal skills - Thinking and problem solving	• Plenary True and False Tasks

		- Identify hypotenuse, opposite and adjacent sides - Ratios in right-angled triangles - Use the tangent ratio to find an unknown side length - Use the sine and cosine ratio to find an unknown side length - Use trigonometric ratios to find an unknown side length - Use trigonometric ratios to find an unknown angle - Exact trigonometric values (E)	- Prior knowledge whiteboard questions - End of topic unit test intervention	- Problem Solving Tasks - Key words: Hypotenuse, Opposite, Adjacent, Tangent, Sine, Cosine	- Working together and communicating - Fundamental skills - Using numbers effectively - Using language effectively - Careers: Agriculture, Surveyors, Construction, Aviation, Astronomy, Engineer	- Peer and self-assessment - Feedback and reflective practise - End of topic tests - End of term tests
	Simultaneous Equations	- Use one value to find another - Introduction to simultaneous equations - Solve simultaneous equations using graphs - Solve simultaneous equations (no adjustments) - Manipulating equations - Solve simultaneous equations (adjust one) - Solve simultaneous equations (adjust both) (E) - Solve simultaneous equations by substitution (E)	- Retrieval in class starter - Prior knowledge whiteboard questions - End of topic unit test intervention	- Key vocabulary - True and False Tasks - Questioning Tasks - Problem Solving Tasks - Key words: Numerator, Denominator, Exact Value, LCM, Simplest Form	- Personal skills - Thinking and problem solving - Working together and communicating - Fundamental skills - Using numbers effectively - Using language effectively	- Plenary True and False Tasks - Peer and self-assessment - Feedback and reflective practise - End of topic tests - End of term tests

					• Careers: Engineering and architecture and planning	
Work Experience						