



Venerable Bede CE Academy
Long Term Curriculum Plan
Subject: Mathematics

Curriculum Intent:

Through our curriculum, EVERY pupil is going to...

- **Develop** a love of learning, academic excellence and **perseverance** in a Christian context
- **Engage** in a wide range of opportunities in **joyful**, meaningful contexts to develop self-worth and mastery of knowledge and skills
- **Encourage** themselves and others to be aspirational and make **wise** choices so that they are prepared for life
- **Practise** equality of opportunity by valuing diversity, actively challenging prejudice and demonstrating **forgiveness** and **hope**

Year	Topic/Unit Title	Approximate Curriculum Hours	Assessment
All year 7 pupils will sit a baseline test when starting Venerable Bede CE Academy			
Year 7 L1	Number and the number system	8	Build a Mathematician, NC Assessment Materials, topic test, Year 7 end of year assessment
	Counting and comparing 1: Read, write, order and compare numbers to 1 000 000.	6	Build a Mathematician, NC Assessment Materials, topic test, Year 7 end of year assessment
	Calculating: Addition and subtraction	6	Build a Mathematician, topic test, Year 7 end of year assessment
	Visualising and construction: identify 3-D shapes, including cubes and other cuboids, from 2-D representations	4	Topic test, Year 7 end of year assessment
	Calculating: Multiplying and dividing	12	Build a Mathematician, topic test, Year 7 end of year assessment
	Investigating properties of shapes	4	Build a Mathematician, topic test, Year 7 end of year assessment
	Exploring fractions, decimals and percentages	10	Build a Mathematician, topic test, Year 7 end of year assessment
	Measuring space: Know, convert and solve problems with units.	8	Build a Mathematician, topic test, Year 7 end of year assessment

	Investigating angles	8	Build a Mathematician, topic test, Year 7 end of year assessment
	Calculating fractions, decimals and percentages	10	Build a Mathematician, topic test, Year 7 end of year assessment
	Calculating space: Perimeter, area and volume	8	Build a Mathematician, topic test, Year 7 end of year assessment
	Checking, approximating and estimating	4	Build a Mathematician, topic test, Year 7 end of year assessment
	Mathematical movement: Transformations	8	Topic test, Year 7 end of year assessment
	Counting and Comparing 2: Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000	4	Build a Mathematician, topic test, Year 7 end of year assessment
	Exploring time	4	Build a Mathematician, topic test, Year 7 end of year assessment
	Presentation of data	8	Build a Mathematician, topic test, Year 7 end of year assessment
Year 7 M2	Numbers and the number system	12	Build a Mathematician, topic test, Year 7 end of year assessment
	Checking, approximating and estimating	6	Topic test, Year 7 end of year assessment
	Calculating: Solve problems involving addition, subtraction and multiplication	10	Build a Mathematician, topic test, Year 7 end of year assessment
	Calculating: Division	7	Topic test, Year 7 end of year assessment
	Visualising and constructing	4	Topic test, Year 7 end of year assessment
	Investigating properties of shapes	4	Topic test, Year 7 end of year assessment
	Exploring fractions, decimals and percentages	8	Build a Mathematician, topic test, Year 7 end of year assessment
	Algebraic proficiency: Using formulae	4	Build a Mathematician, topic test, Year 7 end of year assessment
	Proportional reasoning	6	Build a Mathematician, topic test, Year 7 end of year assessment
	Patterns and sequences	4	Build a Mathematician, topic test, Year 7 end of year assessment

	Measuring space: Use, read, write and convert between standard units	6	Topic test, Year 7 end of year assessment
	Investigating angles	4	Build a Mathematician, topic test, Year 7 end of year assessment
	Calculating fractions, decimals and percentages	10	Build a Mathematician, topic test, Year 7 end of year assessment
	Solving equations and inequalities	4	Topic test, Year 7 end of year assessment
	Calculating space: Perimeter, area and volume	8	Build a Mathematician, topic test, Year 7 end of year assessment
	Mathematical movement: Transformations	4	Build a Mathematician, topic test, Year 7 end of year assessment
	Presentation of data	4	Topic test, Year 7 end of year assessment
	Measuring data: calculate and interpret the mean as an average	4	Build a Mathematician, topic test, Year 7 end of year assessment
Year 7 H3/S4	Numbers and the number system	12	Build a Mathematician, topic test, Year 7 end of year assessment
	Calculating: Recognise and use relationships between operations, including inverse operations	12	Build a Mathematician, topic test, Year 7 end of year assessment
	Checking, approximating and estimating	3	Build a Mathematician, topic test, Year 7 end of year assessment
	Counting and comparing: order positive and negative integers, decimals and fractions	9	Topic test, Year 7 end of year assessment
	Visualising and constructing	4	Build a Mathematician, topic test, Year 7 end of year assessment
	Investigating properties of shapes	5	Topic test, Year 7 end of year assessment
	Algebraic proficiency: Skill building	8	Build a Mathematician, topic test, Year 7 end of year assessment
	Exploring fractions, decimals and percentages	4	Build a Mathematician, topic test, Year 7 end of year assessment
	Proportional reasoning	4	Topic test, Year 7 end of year assessment
	Patterns and sequences	3	Topic test, Year 7 end of year assessment.
	Measuring space	7	Topic test, Year 7 end of year assessment
	Investigating angles	3	Topic test, Year 7 end of year assessment
	Calculating fractions, decimals and percentages	12	Build a Mathematician, topic test, Year 7 end of year assessment
	Solving equations and inequalities	5	Build a Mathematician, topic test, Year 7 end of year assessment

	Calculating space: Surface area and volume	5	Build a Mathematician, topic test, Year 7 end of year assessment
	Mathematical movement: Solve problems involving rotations, reflections and translations	7	Build a Mathematician, topic test, Year 7 end of year assessment
	Presentation of data	6	Topic test, Year 7 end of year assessment
	Measuring data: Median, mean and mode and spread (range)	7	Topic test, Year 7 end of year assessment

Year 7 Homework Overview: Homework will be appropriately set and assessed regularly according to the whole school policy. It will be set via Maths Watch. All pupils are assigned their own username allowing them to work independently on tasks. Alternative resources may be used where seen as more appropriate.

Year 8 L1	Numbers and the number system	12	Build a Mathematician, topic test, Year 8 mock assessment
	Checking, approximating and estimating	6	Topic test, Year 8 mock assessment
	Calculating: Solve problems involving addition, subtraction, and multiplication	10	Build a Mathematician, topic test, Year 8 mock assessment
	Calculating: Division	7	Topic test, Year 8 mock assessment
	Visualising and constructing	4	Topic test, Year 8 mock assessment
	Investigating properties of shapes	4	Topic test, Year 8 mock assessment
	Exploring fractions, decimals and percentages	8	Build a Mathematician, topic test, Year 8 mock assessment
	Algebraic proficiency: Using formulae	4	Build a Mathematician, topic test, Year 8 mock assessment
	Proportional reasoning	6	Build a Mathematician, topic test, Year 8 mock assessment
	Patterns and sequences	4	Build a Mathematician, topic test, Year 7 end of year assessment
	Measuring space: Use, read, write and convert between standard units	6	Topic test, Year 8 mock assessment
	Investigating angles	4	Build a Mathematician, topic test, Year 8 mock assessment
	Calculating fractions, decimals and percentages	10	Build a Mathematician, topic test, Year 7 end of year assessment
	Solving equations and inequalities	4	Topic test, Year 8 mock assessment
	Calculating space: Perimeter, area and volume	8	Build a Mathematician, topic test, Year 8 mock assessment
Mathematical movement: Transformations	4	Build a Mathematician, topic test, Year 8 mock assessment	

	Presentation of data	4	Topic test, Year 8 mock assessment
	Measuring data: calculate and interpret the mean as an average	4	Build a Mathematician, topic test, Year 8 mock assessment
Year 8 M2	Numbers and the number system	12	Build a Mathematician, topic test, Year 8 mock assessment
	Calculating: Recognise and use relationships between operations, including inverse operations	12	Build a Mathematician, topic test, Year 8 mock assessment
	Checking, approximating and estimating	3	Build a Mathematician, topic test, Year 8 mock assessment
	Counting and comparing: order positive and negative integers, decimals and fractions	9	Topic test, Year 8 mock assessment
	Visualising and constructing	4	Build a Mathematician, topic test, Year 8 mock assessment
	Investigating properties of shapes	5	Topic test, Year 8 mock assessment
	Algebraic proficiency: Skill building	8	Build a Mathematician, topic test, Year 8 mock assessment
	Exploring fractions, decimals and percentages	4	Build a Mathematician, topic test, Year 8 mock assessment
	Proportional reasoning	4	Topic test, Year 8 mock assessment
	Patterns and sequences	3	Topic test, Year 8 mock assessment
	Measuring space	7	Topic test, Year 8 mock assessment
	Investigating angles	3	Topic test, Year 8 mock assessment
	Calculating fractions, decimals and percentages	12	Build a Mathematician, topic test, Year 8 mock assessment
	Solving equations and inequalities	5	Build a Mathematician, topic test, Year 8 mock assessment
	Calculating space: Surface area and volume	5	Build a Mathematician, topic test, Year 8 mock assessment
	Mathematical movement: Solve problems involving rotations, reflections and translations	7	Build a Mathematician, topic test, Year 8 mock assessment
	Presentation of data	6	Topic test, Year 8 mock assessment
	Measuring data: Median, mean and mode) and spread (range)	7	Topic test, Year 8 mock assessment

Year 8 H3/S4	Numbers and the number system: Prime numbers, highest common factor, lowest common multiple, prime factorisation	7	Build a Mathematician, topic test, Year 8 mock assessment
	Calculating: Calculate with roots, indices, and standard form.	9	Build a Mathematician, topic test, Year 8 mock assessment
	Visualising and constructing: Use of bearings, similar shapes and scale factors.	8	Topic test, Year 8 mock assessment
	Probability	4	Build a Mathematician, topic test, Year 8 mock assessment
	Algebraic proficiency: Factorising and rearranging formulae	10	Build a Mathematician, topic test, Year 8 mock assessment
	Exploring fractions, decimals and percentages	5	Build a Mathematician, topic test, Year 8 mock assessment
	Proportional reasoning	9	Build a Mathematician, topic test, Year 8 mock assessment
	Patterns and sequences: investigating	4	Build a Mathematician, topic test, Year 8 mock assessment.
	Investigating angles: Exploring parallel lines and polygons	7	Topic test, Year 8 mock assessment
	Calculating fractions, decimals and percentages: Solve financial problems including simple interest	6	Build a Mathematician, topic test, Year 8 mock assessment
	Solving equations, inequalities and exploring graphs	6	Build a Mathematician, topic test, Year 8 mock assessment
	Calculating space: Circles, prisms and cylinders	8	Build a Mathematician, topic test, Year 8 mock assessment
	Algebraic proficiency: Graphs	9	Build a Mathematician, topic test, Year 8 mock assessment
	Exploring probability	8	Topic test, Year 8 mock assessment
	Presentation of data: Scatter graphs and histograms	4	Topic test, Year 8 mock assessment
	Measuring data: Analyse and compare sets of data	6	Topic test, Year 8 mock assessment
Investigating properties of shapes: Pythagoras' Theorem and Right-angled Trigonometry	8	Build a Mathematician, topic test, Year 8 mock assessment	

Year 8 Homework Overview: Homework will be appropriately set and assessed regularly according to the whole school policy. It will be set via Maths Watch. All pupils are assigned their own username allowing them to work independently on tasks. Alternative resources may be used where seen as more appropriate.

Year 9 H	Calculations, checking and rounding	4	Year 9 mock exam, half term assessments and topic tests
	Indices, roots reciprocals and hierarchy of operations	4	Year 9 mock exam, half term assessments and topic tests
	Factors, multiples, primes, standard form and surds	8	Year 9 mock exam, half term assessments and topic tests
	Algebra: the basics, setting up, rearranging and solving equations	14	Year 9 mock exam, half term assessments and topic tests
	Sequences	4	Year 9 mock exam, half term assessments and topic tests
	Averages and range	4	Year 9 mock exam, half term assessments and topic tests
	Representing and interpreting data and scatter graphs	5	Year 9 mock exam, half term assessments and topic tests
	Fractions and percentages	12	Year 9 mock exam, half term assessments and topic tests
	Ratio and proportion	6	Year 9 mock exam, half term assessments and topic tests
	Polygons, angles and parallel lines	6	Year 9 mock exam, half term assessments and topic tests
	Pythagoras' Theorem	6	Year 9 mock exam, half term assessments and topic tests
	Trigonometry	6	Year 9 mock exam, half term assessments and topic tests
	Graphs: the basics and real-life graphs	6	Year 9 mock exam, half term assessments and topic tests
	Linear graphs and coordinate geometry	8	Year 9 mock exam, half term assessments and topic tests
	Quadratic, cubic and other graphs	6	Year 9 mock exam, half term assessments and topic tests
	Perimeter, area and circles	6	Year 9 mock exam, half term assessments and topic tests
	3D forms and volume, cylinders, cones and spheres	8	Year 9 mock exam, half term assessments and topic tests
	Accuracy and bounds	5	Year 9 mock exam, half term assessments and topic tests

	Transformations	8	Year 9 mock exam, half term assessments and topic tests
	Constructions, loci and bearings	8	Year 9 mock exam, half term assessments and topic tests
	Solving quadratic	4	Year 9 mock exam, half term assessments and topic tests
	Solving simultaneous equations	6	Year 9 mock exam, half term assessments and topic tests
	Inequalities	4	Year 9 mock exam, half term assessments and topic tests
Year 9 F	Integers, negative numbers, decimals and place value	4	Year 9 mock exam, half term assessments and topic tests
	Rounding and estimating	3	Year 9 mock exam, half term assessments and topic tests
	Indices, powers and roots	4	Year 9 mock exam, half term assessments and topic tests
	Factors, multiples and primes	6	Year 9 mock exam, half term assessments and topic tests
	Algebra essentials	8	Year 9 mock exam, half term assessments and topic tests
	Expressions and substitution into formulae	6	Year 9 mock exam, half term assessments and topic tests
	Representing and interpreting data, pie charts and scatter graphs	12	Year 9 mock exam, half term assessments and topic tests
	Fractions, decimals and percentages	8	Year 9 mock exam, half term assessments and topic tests
	Percentages	6	Year 9 mock exam, half term assessments and topic tests
	Equations and inequalities	9	Year 9 mock exam, half term assessments and topic tests
	Sequences	5	Year 9 mock exam, half term assessments and topic tests
	Properties of shapes, parallel lines and angle facts	8	Year 9 mock exam, half term assessments and topic tests
	Interior and exterior angles of polygons	5	Year 9 mock exam, half term assessments and topic tests

	Averages and range	6	Year 9 mock exam, half term assessments and topic tests
	Sampling	4	Year 9 mock exam, half term assessments and topic tests
	Perimeter, area and volume	12	Year 9 mock exam, half term assessments and topic tests
	Linear graphs and gradients	8	Year 9 mock exam, half term assessments and topic tests
	Real-life graphs	6	Year 9 mock exam, half term assessments and topic tests
	Transformations	12	Year 9 mock exam, half term assessments and topic tests

Year 9 Homework Overview: Homework will be appropriately set and assessed regularly according to the whole school policy. It will be set via Maths Watch. All pupils are assigned their own username allowing them to work independently on tasks. Alternative resources may be used where seen as more appropriate.

Year 10 H	Year 9 topics will be revisited throughout year 10. It will be sequenced according to the need for prior knowledge to a new topic or as revision.		
	Probability rules and tree diagrams	5	Year 10 mock exam, half term assessments and topic tests
	Conditional probability and Venn diagrams	5	Year 10 mock exam, half term assessments and topic tests
	Ratio and proportion	4	Year 10 mock exam, half term assessments and topic tests
	Growth and decay	4	Year 10 mock exam, half term assessments and topic tests
	Compound Measures	4	Year 10 mock exam, half term assessments and topic tests
	Similarity and congruence in 2D and 3D	8	Year 10 mock exam, half term assessments and topic tests
	Further trigonometry	10	Year 10 mock exam, half term assessments and topic tests
	Graphs of trigonometric functions	8	Year 10 mock exam, half term assessments and topic tests
	Cumulative frequency and box plots	4	Year 10 mock exam, half term assessments and topic tests

	Histograms and comparing data	6	Year 10 mock exam, half term assessments and topic tests
	Further graphs: Solving equations, inequalities and quadratic functions	4	Year 10 mock exam, half term assessments and topic tests
	Quadratic functions	4	Year 10 mock exam, half term assessments and topic tests
	Further graphs: Sketching graphs, graphs of circles, cubes and quadratics	4	Year 10 mock exam, half term assessments and topic tests
	Circle theorems	6	Year 10 mock exam, half term assessments and topic tests
	Circle geometry	6	Year 10 mock exam, half term assessments and topic tests
	Changing the subject of formulae (more complex),	4	Year 10 mock exam, half term assessments and topic tests
	Algebraic fractions	4	Year 10 mock exam, half term assessments and topic tests
	Proof	4	Year 10 mock exam, half term assessments and topic tests
	Rationalising surds	4	Year 10 mock exam, half term assessments and topic tests
Year 10 F	Year 9 topics will be revisited throughout year 10. It will be sequenced according to the need for prior knowledge to a new topic or as revision.		
	Ratio	4	Year 10 mock exam, half term assessments and topic tests
	Proportion	5	Year 10 mock exam, half term assessments and topic tests
	Pythagoras	4	Year 10 mock exam, half term assessments and topic tests
	Trigonometry (right-angled triangles)	8	Year 10 mock exam, half term assessments and topic tests
	Probability	4	Year 10 mock exam, half term assessments and topic tests
	Venn diagrams and set notation	6	Year 10 mock exam, half term assessments and topic tests
	Percentage growth and decay	6	Year 10 mock exam, half term assessments and topic tests

	Compound measures and proportion	6	Year 10 mock exam, half term assessments and topic tests
	Plans and elevations	5	Year 10 mock exam, half term assessments and topic tests
	Constructions, loci and bearings	8	Year 10 mock exam, half term assessments and topic tests
	Quadratic equations: expanding and factorising	6	Year 10 mock exam, half term assessments and topic tests
	Quadratic equations: graphs	4	Year 10 mock exam, half term assessments and topic tests
	Circles, cylinders, cones and spheres	8	Year 10 mock exam, half term assessments and topic tests
	Fractions and reciprocals	6	Year 10 mock exam, half term assessments and topic tests
	Indices and standard form	6	Year 10 mock exam, half term assessments and topic tests

Year 10 Homework Overview: Homework will be appropriately set and assessed regularly according to the whole school policy. It will be set via Maths Watch. All pupils are assigned their own username allowing them to work independently on tasks. Alternative resources may be used where seen as more appropriate.

Year 11 H	Year 9 and 10 topics will be revisited throughout year 11. It will be sequenced according to the need for prior knowledge to a new topic or as revision.		
	Vectors and geometric proof	12	Year 11 mocks and topic-based assessments
	Reciprocal and exponential graphs	4	Year 11 mocks and topic-based assessments
	Transformations of graphs and functions	6	Year 11 mocks and topic-based assessments
	Gradient and area under graphs	6	Year 11 mocks and topic-based assessments
	Direct and inverse proportion	6	Year 11 mocks and topic-based assessments

Year 11 F	Year 9 and 10 topics will be revisited throughout year 11. It will be sequenced according to the need for prior knowledge to a new topic or as revision.		
	Similarity and congruence in 2D	6	Year 11 mocks and topic-based assessments
	Vectors	8	Year 11 mocks and topic-based assessments
	Rearranging equations	6	Year 11 mocks and topic-based assessments
	Graphs of cubic and reciprocal functions	6	Year 11 mocks and topic-based assessments
	Simultaneous equations	6	Year 11 mocks and topic-based assessments

Year 11 Homework Overview: Homework will be appropriately set and assessed regularly according to the whole school policy. It will be set via Maths Watch. All pupils are assigned their own username allowing them to work independently on tasks. Alternative resources may be used where seen as more appropriate.