Curriculum Map – Mathematics Year 7

			Autumn Term			
Y7	Topic Title: Four operations with rounding and approximation Big Questions: How do I apply place value knowledge to integers, decimals, and measures? How do I use directed numbers?	Topic Title: Four operations with rounding and approximation. Order of operations. Big Questions: How do I recognise and use mathematical symbols? How do I apply rules of BIDMAS?	Topic Title: Types of number Big Questions: How do I use and apply Factors, multiples and index notation and law?	Topic Title: Algebra Big Questions: How do I use correct algebraic notation? How do I collect and simplify expressions? How do I simplify expressions with multiplication/division? How do I Expand brackets with algebra?? How do I identify, continue and generate terms from a term to term rule for a sequence?		
Links to NC	Understand and use place value for integers and decimals. Use the four operations, including formal written methods, applied to integers and decimals. Understand and use directed numbers.	Round numbers and measures to an appropriate degree of accuracy, leading to estimating answers. Recognise and use relationships between operations, including inverse operations. Use the symbols =, ≠, >, <, ≤, ≥, ≈ Use conventional notation for the priority of operations, including brackets.	Use the concepts and vocabulary of prime numbers, factors (divisors), multiples, common factors, common multiples, highest common factor and lowest common multiple	Use and interpret algebraic notation. Understand and use the concepts and vocabulary of expressions, equations, inequalities, terms and factors.	Simplify and manipulate algebraic expressions to maintain equivalence by collecting like terms and multiplying a single term over a bracket.	Generate terms of a sequence from a term-to-term rule Introduce position-to-term rules for simple arithmetic sequences, linked to multiplication tables
Assessments	Base Line Assessment Four operations with rounding and approximation.	Order of operations.	Factors, multiples and primes.	Algebraic notation. Collecting like term. Simplifying expressions. Expanding brackets. Sequences.		

Curriculum Map – Mathematics Year 7

	Autumn Term		
Y7	Topic Title: Fractions Big Questions: How do I use the four operations with fractions?	Topic Title: Unit conversions Big Questions: How do I convert between standard units?	Topic Title: Geometric notation properties of 2D and 3D shapes Big Questions: How can I use geometric notation? How do I recognise and describe 2d and 3d shapes?
Links to NC	Use the four operations, including formal written methods, applied to decimals, proper and improper fractions, and mixed numbers	Begin to reason deductively about proportionality. Change freely between related standard units (for example, time, length, area, volume, capacity, and mass)	Describe, sketch and draw using conventional terms and notations. Describe the properties of 2D and 3D shapes.
Assessments	Four operations with fractions.	Units of measurements, converting between metric units.	Properties of 2D and 3D shapes and labelling conventions. End of term assessment.

Curriculum Map – Mathematics Year 7

	Spring Term				
Y7	Topic Title: Geometry – Perimeter Big Questions: How do I find the perimeter shapes?	Topic Title: Geometry – Area Big Questions: How do I use and apply the area formulae for different shapes?	Topic Title: Percentages Big Questions: How do change to a percentage from fractions and decimals? How do I define Percentages? How do I use arithmetic to help solve percentage of amounts problems?	Topic Title: Probability Big Questions: How do I write the probability of an event on a probability scale? How do I find the probability of an event happening? How do I read a Sample Space diagram?	Topic Title: Coordinates Big Questions: What are the Four quadrants on cartesian plane?
Links to NC	Derive and apply formulae to calculate and solve problems involving perimeter and area of triangles, parallelograms, and trapezia.		Define a percentage as 'number of parts per hundred'. Interpret percentages and percentage change as a fraction of decimal and interpret these multiplicatively. Express one quantity as a percentage of another Compare two quantities using percentages. Find percentages of an amount with and without a calculator.	Record, describe and analyse the frequency of outcomes of simple probability experiments involving randomness, fairness and equally likely outcomes, using appropriate language and the 0-1 probability scale. Calculate probabilities in simple cases. Complete and use sample space diagrams.	Work with coordinate grid in all 4 quadrants
Assessments	Perimeter and area.		FDP, conversion, find a percentage of an amount with and without a calculator.	Probability scale and calculating probabilities of events.	Using the cartesian grid in all four quadrants. End of spring term assessment.

Curriculum Map – Mathematics Year 7

	Summer Term				
Y7	Topic Title: Geometry- angles Big Questions: How do I use angle properties to calculate missing angles?	Topic Title: Statistics Big Questions: How do I calculate and interpret measure of central tendency and spread? How do I construct and interpret appropriate tables, charts, and diagrams?	Topic Title: Algebra - formula and linear equations Big Questions: How do I substitute into formula? How do I solve linear equations?	Topic Title: Transformation Big Questions: How do I perform transformations and describe transformations?	Topic Title: Circles investigation Big Questions: How do I identify and describe properties of a circle? How do I link pi to a circle?
Links to NC	Apply the properties of angles at a point, angles at a point on a straight line.	Describe, interpret, and compare observed distributions of a single variable through data sets from univariate empirical distributions through appropriate measures of central tendency (mean, mode and median) and spread (range) Construct and interpret appropriate tables, charts, and diagrams, including frequency tables, bar charts and pictograms for categorical data. How do I use Frequency tables, bar charts and pictograms?	Substitute numerical values into formulae and expressions, including scientific formulae. Use algebraic methods to solve linear equations in one variable.	Identify properties of, and describe the results of, translations, rotations and reflections applied to given figures.	Derive and illustrate properties of a circle.
Assessments	Angle properties and calculating missing angles.	Calculating averages and interpreting/constructing graphs.	Algebra - formula and linear equations.	Translations, rotations and reflections of 2D shapes.	Calculating the circumference and area of a circle.