Mathematics Year 7 Curriculum Map

Autumn Term			
Y7	Topic Title: Autumn Unit 1- Number Sense Big Questions: How do I apply place value knowledge to integers, decimals and measures? How do I use directed numbers? How do I apply rules of BIDMAS?	Topic Title: Autumn Unit 2 - Expressions, functions and formulae Big Questions: How do I use input and output with function machines? 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?	Topic Title: Autumn Unit 3 - Measures Big Questions: How do I use time correctly? How do I use a ruler correctly? How do I convert between standard units?
Links to NC	Use the four operations, including formal written methods, applied to integers and decimals. Understand and use directed numbers. Use conventional notation for the priority of operations, including brackets. Use the symbols =, ≠, >, <, ≤, ≥, ≈	Use and interpret algebraic notation. Understand and use the concepts and vocabulary of expressions, terms and factors. Simplify and manipulate algebraic expressions to maintain equivalence by collecting like terms and multiplying a single term over a bracket.	Understand and use place value for integers and decimals. Round numbers and measures to an appropriate degree of accuracy, leading to estimating answers. Change freely between related standard units (for example, time, length, area, volume, capacity, and mass)
Assessments	Baseline test CFU Number Sense	CFU Expressions, functions and formulae	CFU Measures

Mathematics Year 7 Curriculum Map

Spring Term			
Y7	Topic Title: Spring Unit 4 – 2D shapes Big Questions: How do I identify and describe 2d shapes?	Topic Title: Spring Unit 5 – Perimeter and Area Big Questions: How do I find the perimeter shapes? How do I use and apply the area formulae for different shapes? How do I find the area of composite shapes?	Topic Title: Spring Unit 6 – Coordinates Big Questions: What are do graphs of equations and functions look like?
Links to NC	use language and properties precisely to analyse numbers, algebraic expressions, 2-D and 3-D shapes, probability and statistics.	Derive and apply formulae to calculate and solve problems involving: perimeter and area of triangles, parallelograms, trapezia, volume of cuboids (including cubes) and other prisms (including cylinders)	work with coordinates in all four quadrants
Assessments	End of Autumn Term Assessment CFU 2D shapes	CFU Perimeter and Area	CFU Coordinates

Mathematics Year 7 Curriculum Map

Spring Term			
Y7	Topic Title: Spring Unit 7 – Factors, Multiples and Primes Big Questions: What are prime numbers? How do I use and apply multiples? How do I use and apply Factors? How do I use factors in HCF problems? How do I use multiples in LCM problems?	Topic Title: Spring Unit 8 – Fractions Big Questions: How do I use the four operations with fractions?	Topic Title: Spring Unit 9 – Fractions Big Questions: How do I simplify and manipulate algebraic expressions to maintain equivalence?
Links to NC	Use the concepts and vocabulary of prime numbers, factors (divisors), multiples, common factors, common multiples, highest common factor and lowest common multiple Recognise and use relationships between operations, including inverse operations	Use the four operations, including formal written methods, applied to decimals, proper and improper fractions, and mixed numbers. Four operations with fractions. 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.	Algebraic simplification and manipulation of algebraic fractions.
Assessments	CFU Factors, Multiples and Primes	CFU Fractions	

Mathematics Year 7 Curriculum Map

Summer Term			
Y7	Topic Title: Summer Unit 10 – Angles Big Questions: What are the correct conventions, notation and terms for geometry? How do I recognise the correct conventions, notation and terms in geometry? How do I use angle properties to calculate missing angles?	Topic Title: Summer Unit 11 – Handling data and Statistical diagrams Big Questions: How can calculate and interpret measure of central tendency and spread? How do I calculate and interpret measures of tendency? How do I construct and interpret appropriate tables, charts and diagrams? How do I interpret and show data?	Topic Title: Summer Unit 12 – Proportion Big Questions: When do I use the unitary method?
Links to NC	Describe, sketch and draw using conventional terms and notations: points, lines, parallel lines, perpendicular lines, right angles. 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?	Solve problems involving direct and inverse proportion, including graphical and algebraic representations
Assessments	CFU Angles	CFU Data	CFU Proportion

Mathematics Year 7 Curriculum Map

Summer Term		
Y7	Topic Title: Summer Unit 13 – Fractions, Decimals and Percentages Big Questions: How do I use the four operations with fractions? How do I use multiplying fractions? How do change to a percentage from fraction and decimal?	Topic Title: Summer Unit 14 – 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? What are combined events and probability diagrams?
Links to NC	Use the four operations, including formal written methods, applied to decimals, proper and improper fractions, and mixed numbers. Four operations with fractions. 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.
Assessments	CFU FDP	CFU Probability