Mathematics Year 7 Curriculum Map

	Autumn Term				
Y7	**Topic Title:** Autumn Unit 1 Analysing and displaying data **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:** Autumn Unit 2- Number Skills **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- Number Skills **Big Questions:** How do I use and apply multiples? How do I use multiples in LCM problems? How do I use and apply Factors? How do I use factors in HCF problems? What are prime numbers?	**Topic Title:** Autumn Unit 3 - 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 4 - Decimals and measures **Big Questions:** How do I use a ruler correctly? How do I convert between standard units? How do I apply place value knowledge to integers and decimals? How do I find the perimeter shapes? How do I use and apply the area formulae for different shapes?
Links to NC	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?	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 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 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 Maths Progress Unit Test 1: Averages and displaying data	CFU Maths Progress Unit Test 2: Number Skills	CFU Maths Progress Unit Test 3: Expressions, functions and formulae Half term assessment.		CFU Maths Progress Unit Test 4: Decimals and Measures. End of term assessment.

Mathematics Year 7 Curriculum Map

	Spring Term		
Y7	**Topic Title:** Spring Unit 5 – Fractions **Big Questions:** How do I write a fraction? How do I use the four operations with fractions? How do I use multiplying fractions? How do change to a percentage from fractions and decimals? How do I use arithmetic to help solve percentage of amounts problems?	**Topic Title:** Spring Unit 6 – 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 basic probability and probability experiments?	**Topic Title:** Spring Unit 7 - Ratio and Proportion **Big Questions:** How do I link fractions and ratio? What is direct proportion?
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.	Use ratio notation, including reduction to simplest form divide a given quantity into two parts in a given part:part or part:whole ratio; express the division of a quantity into two parts as a ratio Understand that a multiplicative relationship between two quantities can be expressed as a ratio or a fraction. Solve problems involving direct and inverse proportion.
Assessments	CFU Maths Progress Unit Test 5: Fractions	CFU Maths Progress Unit Test 6: Probability Half term assessment.	CFU Maths Progress Unit Test 7: Ratio and Proportion End of term assessment.

Mathematics Year 7 Curriculum Map

	Summer Term		
Y7	**Topic Title:** Summer Unit 8 - Lines and angles **Big Questions** 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 9 - Sequences and Graphs **Big Questions** How do I identify, continue and generate terms from a term to term rule for a sequence/pattern? How do I recognise arithmetic sequences to generate terms and find the nth term? What are the Four quadrants on cartesian plane? What are straight line graphs?	**Topic Title:** Summer Unit 10 - Transformation **Big Questions:** How do I perform transformations and describe transformations?
Links to NC	Apply the properties of angles at a point, angles at a point on a straight line.	Generate terms of a sequence from a term-to-term rule Introduce position-to-term rules for simple arithmetic sequences, linked to multiplication tables Work with coordinate grid in all 4 quadrants.	Identify properties of, and describe the results of, translations, rotations and reflections applied to given figures.
Assessments	CFU Maths Progress Unit Test 8: Lines and angles	CFU Maths Progress Unit Test 9: Sequences and graphs Half term assessment.	CFU Maths Progress Unit Test 10: Transformations End of term assessment.