Mathematics Year 8 Curriculum Map

	Autumn Term				
Y8	**Topic Title:** Autumn Unit 1 Number **Big Question:** How do I apply place value knowledge to integers, decimals, and measures? What are directed numbers? How do I recognise and use index notation?	**Topic Title:** Autumn Unit 1 Number **Big Question:** What are Prime numbers? How do I use multiplication and division with finding factors? How do I use multiples in LCM problems? How do I use approximation through rounding to estimate answers?	**Topic Title:** Autumn Unit 2 Area and Volume **Big Question:** How do I use PV with numbers? How do I use and apply the area formulae for different shapes? How do I use and apply the area and volume formulae for cube and cuboids?	**Topic Title:** Autumn Unit 3 Statistics, graphs and charts **Big Question:** How do I interpret and show data? How do I calculate and interpret measures of tendency?	**Topic Title** Autumn Unit 4 Expressions and equations **Big Question:** How do I use correct algebraic notation? What are algebraic expressions? How do I substitute and rearrange scientific formulae? How do I simplify and manipulate algebraic expressions to maintain equivalence? How do I use algebraic methods to solve linear equations in one variable?
Links to NC	Understand and use place value for decimals, measures and integers of any size. Order positive and negative integers, decimals and fractions; use the number line as a model for ordering of the real numbers; use the symbols =, ≠, <, >, ≤, ≥ Use conventional notation for powers and roots.	Use the concepts and vocabulary of prime numbers, factors (or divisors), multiples, common, factors, common multiples, highest common factor, lowest common multiple, prime factorisation.	Derive and apply formulae to calculate and solve problems involving perimeter, area and volume	Construct and interpret appropriate tables, charts, and diagrams. Calculate and interpret measures of central tendency and spread, including consideration of outliers.	Simplify and manipulate algebraic expressions by taking out common factors. Solve linear equations. Substitute numerical values into scientific formulae. Rearrange to change the subject.
Assessments	CFU Maths Progress Unit Test 1: Number		CFU Maths Progress Unit Test 2: Area and Volume	CFU Maths Progress Unit Test 3: Statistics, graphs and charts	CFU Maths Progress Unit Test 4: Expressions and equations End of term assessment.

Mathematics Year 8 Curriculum Map

	Spring Term		
Y8	**Topic Title:** Spring Unit 5 Real - life graphs **Big Question:** How do you interpret and use real life graphs?	**Topic Title:** Spring Unit 6 Decimals and ratio **Big Question:** How do I use approximation through rounding to estimate answers? How do I apply place value knowledge to integers, decimals and measures? How do I link fractions and ratio? How do I use ratio with recipes?	**Topic Title:** Spring Unit 7 Lines and angles **Big Question:** How do I identify and describe 2d shapes? How do I use angle properties to calculate missing angles? How do I apply angle facts to a variety of problems?
Links to NC	Plot and interpret graphs and graphs of non-standard functions in real contexts	Use approximation through rounding to estimate answers. Use the four operations with decimals. 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.	Derive and illustrate properties of triangles, quadrilaterals, circles, and other plane figures. Understand and use the relationship between parallel lines and alternate and corresponding angles. Derive and use the sum of the angles in a triangle and use it to deduce the angle sum of any polygon.
Assessments	CFU Maths Progress Unit Test 5: Real – life graphs	CFU Maths Progress Unit Test 6: Decimals and ratio	CFU Maths Progress Unit Test 7: Line and angles End of term assessment.

Mathematics Year 8 Curriculum Map

	Summer Term		
Y8	Topic Title: Summer Unit 8 Calculating with fractions Big Question: How do I use the four operations with fractions? How do I use multiplying fractions?	Topic Title: Summer Unit 9 Straight line graphs Big Question: What are do graphs of equations and functions look like?	Topic Title: Summer Unit 10 Percentages, decimals and fractions Big Question: How do I use the correct compound measure and covert measurements correctly?
Links to NC	Use four operations, applied to proper and improper fractions, and mixed numbers.	Recognise, sketch and produce graphs of linear functions of one variable with appropriate scaling, using equations in x and y and the Cartesian plane.	Change freely between related standard units. Use compound measure such as speed, unit pricing and density to solve problems.
Assessment	CFU Maths Progress Unit Test 8 Calculating with fractions	CFU Maths Progress Unit Test 9 Straight line graphs	CFU Maths Progress Unit Test 10 Percentage, decimals and fractions End of term assessment.