Mathematics	Intent: To build a deep understanding of fundamental concepts within mathematics. Learners will develop fluency with numerical concepts before advancing them to more abstract algebraic ideas.			
Year 7	**The Number System and Equivalence**	**Adding and Subtracting**	**Multiplying**	**Dividing**
Knowledge (facts, information, concepts and key terminology)	Primes, factors and multiples, HCF, LCM, equivalent fractions, place value, converting between metric lengths and fractions and decimals.	Commutative and associative law, integers, negatives, algebraic terms, perimeter, decimals and fractions.	Distributive law, integers, manipulating multiplications, negatives, algebraic terms, area, decimals and fractions.	Distributive law, integers, manipulating divisions, negatives, algebraic terms, decimals and fractions.
Understanding (ability to connect and synthesise knowledge within a context)	The multiplicative nature of the number system. The need for both fractional and decimal representations of numbers.	The same methods for adding and subtracting can be applied to most types of numbers when fluent.	The same methods for multiplying can be applied to most types of numbers when fluent.	The same methods for dividing can be applied to most types of numbers when fluent.
Skills (successful application of knowledge and understanding to a specific task)	Use prime factors in a variety of contexts to simplify a problem. Smoothly transition between fractions and decimals in order to choose the most efficient method.	Use laws of arithmetic in a variety of contexts to simplify a problem. Apply knowledge and understanding to contextual problems. Apply knowledge to real-life contexts for perimeters.	Be flexible with multiplicative calculations in order to find the most efficient method. Apply knowledge and understanding to contextual problems. Apply knowledge to real-life contexts for areas.	Be flexible with division calculations in order to find the most efficient method. Apply knowledge and understanding to contextual problems.
Formal Assessments (those done by all/vast majority of the cohort)	Termly cumulative assessments covering content from start of year 7. Topic Assessments after each topic has been delivered.			
By the end of the year students on course for at least a grade 5 will… be proficient in standard procedures when in a purely mathematical context.				

The timings and order of delivery shown are approximate, these may change on a class-by-class basis

Term 1

Topic	Breakdown
The Number System	Factors
	Prime numbers
	Prime factors
	HCF
	Multiples and LCM
Equivalence	Manipulating fractions
	Comparing fractions
	Place value
	Multiplying and dividing by powers of 10
	Converting metric lengths
	Converting between fractions and decimals
Adding and Subtracting	Integers
	Perimeter
	Negatives
	Algebra
	Decimals
	Fractions

Term 2

Topic	Breakdown
Multiplying	Integers
	Area
	Equivalent calculations
	Negatives
	Algebra
	Decimals
	Fractions

Term 3

Topic	Breakdown
Dividing	Integers
	Equivalent calculations
	Negatives
	Algebra
	Decimals
	Fractions