Curriculum Map	Subject	MATHS	Year	7

Unit	Summary	Skills (This is not an exhaustive list)	Assessment	British Values and SMSC	Career links	Cross-curricular links
Algebraic thinking	Sequences Understand and use algebraic notation Equality and equivalence	Describe and continue sequences in diagram and number forms. Use single function machines and series of two function machines with numbers, bar models and letters. Understand equality and equivalence of algebraic expressions.	Reviews at the end of each block. Term 1 – Numeracy assessment. Term 3 – Assessment on the Autumn term content. Term 5 – Assessment on the Spring term content. Term 6 – Numeracy assessment.	Fibonacci sequences are found in nature and everyday life.	Computer programmer Medical scientist	Computer science – programming link to function machines.
Place value and proportion	Place value and ordering integers and decimals Fraction, decimal and percentage equivalence	Recognise and use integer place value, compare and order numbers, round numbers. Represent on diagrams and number lines, convert between fractions, decimals and percentages.		Understanding of the VAT and tax systems. Law.	Financial maths – working in a bank, mortgages and loans. Catering industry. Hospitality. Medical – nursing.	Food technology – recipes. Use of equipment.
Applications of number	Solving problems with addition and subtraction Solving problems with multiplication and division Fractions and percentages of amounts	Solve problems in a context of charts and money and perimeter. Find the HCF and LCM of numbers and begin to use the order of operations. Work out simple fractions and percentages of amounts, with and without a calculator.		Within mathematics there are opportunities to study areas where numerical data is part of the rule of law. Students are encouraged to develop their thinking skills when analysing mathematical questions which will enable them to think through ideas critically.	Retail. Banking and finance. Insurance companies. Pensions. Stocks and shares.	Technology calculations.

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Directed number	Four operations with directed number	Order and revisit four operations with directed number and solve twostep equations.		Maths in the real world – finance, temperatures, shopping, bills.	Travel agent. Banking and finance.	Science - temperatures. Geography - climate temperatures.
Fractional thinking	Addition and subtraction of fractions	Convert mixed numbers and improper fractions. Add and subtract fractions with the same/different denominators.			Construction. Surveyors. Architects. Dentists.	Technology – calculations. Geographs. Science – practicals, measurement and results.
Lines and angles	Constructing, measuring and using geometric notation Developing geometric reasoning	Understand and use notation for lines and angles. Classify angles. Construct triangles given SSS, SAS, ASA. Calculate and use angles at a point, angles on a straight line and vertically opposite angles.		The philosophy of maths – was it invented or discovered? Angles in the beauty of nature.	Architect, computer software.	Design technology – plan and design. STEM lessons – design phase.
Reasoning with number	Developing number sense Sets and probability Prime numbers and proof	Mental arithmetic strategies. Use known facts to derive other facts and use estimation. Understand and use set notation. Draw and interpret Venn diagrams. Use the language of probability. Recognise prime, square and triangle numbers. Express a number as a product of prime factors. Make and test conjectures.		The magic of prime numbers – their value, meaning and support of the wonders of technology and coding. Pascal's triangle – recognise the findings of Chinese, Middle Eastern mathematicians and give credit for their work.	Predicting the weather, climate change. Use of prime numbers in computing and banking – harder to hack	PSHSE – gambling sense. Pastoral. Information technology – use of primes in programming.