

Year 7 Current Progress

	1. Place Value	2. Fractions, Decimals and Percentages	3. Probability	4. Constructions and Transformations	5. Data, Averages and Reading Graphs	6. Algebra Expressions and Formulae
Core knowledge:	Place Value. Adding, subtracting, multiplying and dividing. Conversion of units. Indices. Order of operations. Factors, multiples and primes	Equivalent fractions. Simplifying fractions. Four operations with fractions. Percentages. Converting between Fractions, Decimals & Percentages.	Language of probability. Calculating probabilities. Comparing probabilities. Estimating probability. Experimental probability.	Constructions. Loci. Transformations	Data analysis. Data collection. Data representation: Bar charts; Frequency tables; Frequency diagrams; Line graphs; Two-way tables; Pie charts; Stem & leaf; Scatter graphs; Real-life graphs	Using and writing function machines /expressions. Simplifying algebraic expressions. Writing expressions. Brackets and powers. Factorising expressions. Using formulae. Writing formulae.

Term	Strand	Topic	Topic code	R	A	G
AUTUMN 1	Place Value	Using number lines	M763			
		Integer place value	M704			
		Decimal place value	M522			
	Ordering	Ordering negative numbers	M527			
	Rounding	Rounding integers	M111			
		Rounding decimals	M431			
		Rounding integers using significant figures	M994			
		Estimating calculations	M878			
		Rounding decimals using significant figures	M131			
	Four operations – adding , subtracting, multiplying and dividing	Adding integers	M928			
		Adding decimals	M429			
		Subtracting integers	M347			
		Subtracting decimals	M152			
		Adding and subtracting with negative numbers	M106			
		Multiplying and dividing by 1010, 100100 and 10001000	M113			
		Multiplying using place value	M911			
		Using the commutative laws	M952			
		Using a written method to multiply integers	M187			
		Dividing numbers into equal groups	M462			

Term	Strand	Topic	Topic code	R	A	G
		Using a written method to divide integers	M354			
		Dividing with a remainder	M873			
		Multiplying and dividing with negative numbers	M288			
		Using a written method to multiply decimals	M803			
		Using a written method to divide with decimals	M262			
	Roots & Powers	Calculating with roots and powers	M135			
	Indices	Using standard form with positive indices	M719			
		Index rules with positive indices	M608			
		Index rules with negative indices	M150			
	Order of Operations and Laws of Mathematics	Using a calculator	M757			
		Using the correct order of operations	M521			
		Using the associative laws	M409			
		Using the distributive law	M637			
	Conversion of Units	Converting units of length, mass and capacity	M774			
	Factors, multiples and primes	Finding factors and using divisibility tests	M823			
		Finding the lowest common multiple (LCM)	M227			
		Finding the highest common factor (HCF)	M698			
		Finding prime numbers	M322			
		Prime factor decomposition	M108			
		Finding the HCF and LCM using prime factor decomposition	M365			
AUTUMN 2	Fractions and mixed numbers	Finding fractions of shapes	M158			
		Constructing fractions	M939			
		Finding equivalent fractions	M410			
		Simplifying fractions	M671			
		Ordering fractions	M335			
		Adding and subtracting fractions	M835			
		Converting between mixed numbers and improper fractions	M601			
		Adding and subtracting mixed numbers	M931			
		Multiplying fractions	M157			
		Multiplying with mixed numbers	M197			
		Reciprocals	M216			
		Dividing fractions	M110			
		Dividing with mixed numbers	M265			
	Fractions of amounts	Finding fractions of amounts without a calculator	M695			
		Finding fractions of amounts with a calculator	M684			

Term	Strand	Topic	Topic code	R	A	G
	Fractions, decimals and percentages	Converting between fractions and decimals	M958			
		Converting between fractions, decimals and percentages	M264			
		Ordering fractions, decimals and percentages	M553			
		Using recurring decimal notation	M701			
		Converting fractions to recurring decimals	M922			
		Writing numbers as percentages of other numbers	M235			
	Percentages of amounts	Finding percentages of amounts without a calculator	M437			
		Finding percentages of amounts with a calculator	M905			
	Percentage change	Percentage change without a calculator	M476			
		Percentage change with a calculator	M533			
		Finding original values in percentage calculations	M528			
SPRING 1	Theoretical probability	Using probability phrases	M655			
		Writing probabilities as fractions	M941			
		Writing probabilities as fractions, decimals and percentages	M938			
		Sample space diagrams	M718			
		Probabilities of mutually exclusive events	M755			
	Experimental probability	Calculating experimental probabilities	M332			
	More theoretical probability	Expected results from repeated experiments	M206			
		Venn diagrams	M829			
		Venn diagrams with set notation	M834			
		Probabilities from Venn diagrams	M419			
		Tree diagrams for independent events	M299			
		Tree diagrams for dependent events	M572			
SPRING 2	Constructions and loci	Using a ruler	M985			
		Using a pair of compasses	M196			
		Constructing triangles	M565			
		Constructing bisectors of angles	M232			
		Constructing perpendicular bisectors and lines	M239			
		Constructing loci	M253			
	Transformations	Translation	M139			
		Reflection	M290			
		Rotation	M910			
		Enlargement	M178			
		Mixed transformations	M881			

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SUMMER 1	Data Analysis	Finding the mode	M841			
		Calculating the mean	M940			
		Calculating the range	M328			
		Calculating the median	M934			
		Finding averages from frequency tables	M127			
		Finding averages from grouped data	M287			
		Choosing suitable averages and solving problems	M440			
	Frequency tables	Interpreting frequency tables and two way tables	M899			
		Interpreting frequency tables with grouped data	M441			
	Collecting and presenting data	Designing and using questionnaires	M493			
		Collecting and recording data using tables	M945			
		Presenting data and making conclusions	M450			
	Bar charts	Drawing bar charts	M460			
		Interpreting bar charts	M738			
	Pie charts	Drawing pie charts	M574			
		Interpreting pie charts	M165			
	Line graphs	Drawing line graphs	M140			
		Interpreting line graphs	M183			
	Stem-and-leaf diagrams	Drawing stem-and-leaf diagrams	M648			
		Interpreting stem-and-leaf diagrams	M210			
	Scatter graphs	Plotting scatter graphs	M769			
		Interpreting scatter graphs	M596			
SUMMER 2	Algebraic notation	Algebraic notation	M813			
		Algebraic terminology	M830			
	Function machines	Function machines with numbers	M175			
		Function machines with letters	M428			
	Simplifying expressions	Simplifying expressions containing a single variable	M795			
		Simplifying expressions containing multiple variables	M531			
		Simplifying expressions containing non-linear terms	M949			
		Simplifying expressions using index laws	M120			
	Substituting into expressions and formulae	Substituting into expressions with one operation	M417			
		Substituting into expressions with multiple operations	M327			
		Substituting into algebraic formulae	M208			
		Substituting into real life formulae	M979			
	Brackets	Expanding single brackets	M237			

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		Expanding single brackets and simplifying expressions	M792			
		Expanding double brackets	M960			
		Factorising into one bracket	M100			
		Factorising into two brackets	M908			
	Rearranging formulae	Changing the subjects of formulae with one step	M242			