The Maths Component Curriculum – Year 5

What do we want our children to know and remember? (Key objectives taken from the National Curriculum)

YEAR 5	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7
Autumn 1	**Year 4 Recap**	**Number and place value** • [KEY] Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit.	**Addition and subtraction** • [KEY] Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) • [KEY] Add and subtract numbers mentally with increasingly large numbers.	**Multiplication and division** • [KEY] Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers. • Multiply and divide numbers mentally, drawing upon known facts. • Multiply numbers up to 4 digits by a one- or two-digit number using formal written method, including long multiplication for two-digit numbers. • Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context.		**Test week**	**Multiplication and division** • Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000.
Autumn 2	**Fractions** • Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths. • [KEY] Read, write, order and compare numbers with up to three decimal places. • [KEY] Compare and order fractions whose denominators are all multiples of the same number.		**Measure** • [KEY] Measure and calculate the perimeter of composite rectilinear shapes in cm and m. • [KEY] Calculate and compare the area of rectangles (including squares) and including using standard units, square centimetres (cm^2) and square metres (m^2) and estimate the area of irregular shapes. • [KEY] Convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre)		**Shape and position** • Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles. • [KEY] Draw given angles, and measure them in degrees (°) • Identify angles at a point and one whole turn (total 360°) • Identify angles at a point on a straight line and a turn (total 180°) • Identify other multiples of 90°		**Statistics** • [KEY] Complete, read and interpret information in tables, including timestables.
Spring 1	**Number and place value** • [KEY] Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero. • Count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000		**Addition and subtraction** • Solve addition and subtraction multi-step problems in contexts, deciding which operations	**Multiplication and division** • Recognise and use square numbers and cube numbers and the notation for the squared (^{2}) and cubed (^{3}). • [KEY] Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes.		**Measure** • Estimate volume [for example, using 1 cm^3 blocks to build cuboids (including cubes)] and capacity [for example, using water]	

Note – statements are from the expected standard for greater depth standard please see the LAT framework.

	• Solve number problems and practical problems that involve numbers up to 1,000,000, negative numbers, rounding or jumping in steps.		and methods to use and why.	• Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers. • Establish whether a number up to 100 is prime and recall prime numbers up to 19. • Revisit solving problems involving addition, subtraction and a combination of these, including understanding he meaning of the equals sign.	• Use all four operations to solve problems involving measure [for example length, mass, volume, money] using decimal notation, including scaling.	
Spring 2	**Statistics** • Solve comparison, sum and difference problems using information presented in a line graph • Construct bar charts where needed across numerous subjects.	**Test week**	**Fractions** • Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements greater than 1 as a mixed number [for example, 2/5 + 4/5 = 6/5 = 1 1/5] • Add and subtract fractions with the same denominator and denominators that are multiples of the same number • [KEY] Solve problems which require knowing percentage and decimal equivalents of 1/2, 1/4, 1/5, 2/5, 4/5 and those fractions with a denominator of a multiple of 10 or 25.	**Shape and position** • Identify 3D shapes, including cubes and other cuboids, from 2D representations • Use the properties of rectangles to deduce related facts and find missing lengths and angles • [KEY] Distinguish between regular and irregular polygons based on reasoning about equal sides and angles. • Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed.		
Summer 1	**Number and place value** • Round any number up to 1,000,000 to the nearest 10, 100, 1000, 10,000 and 100,000. • Read Roman numerals to 1000 (M) an recognise years written in Roman numerals		**Addition and subtraction** • Use rounding to check answers to calculations and determine in the context of a problem, levels of accuracy	**Multiplication and division** • [KEY] Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates. • Revisit solving problems involving addition, subtraction and a combination of these, including understanding he meaning of the equals sign.	**Measure** • Understand the use of approximate equivalences between metric units and common imperial units such as inches, pounds and pints. • Solve problems involving converting between units of time • Revisit using all four operations to solve problems involving measure [for example,	

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				length, mass, volume, money] using decimal notation, including scaling	
Summer 2	**Fractions** • Solve problems involving numbers up to three decimal places. • [KEY] Read and write decimal numbers as fractions [for example, 0.71 = 71/100] • Recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred' and write percentages as a fraction with denominator 100, and as a decimal.	**Test week**	**Shape and position** • Continue to identify 3D shapes, including cubes and other cuboids, from 2D representations. • Continue to use the properties of rectangles to deduce related facts and find missing lengths and angles • [KEY] Continue to distinguish between regular and irregular polygons based on reasoning about equal sides and angles. • Continue to identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed.	**Statistics** • Continue to solve comparison, sum and difference problems using information presented in a line graph • Construct bar charts where needed across numerous subjects.	**Revision and recap**

YEAR 5	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7
Autumn 1	**Year 4 Recap**					**Test week**	
Autumn 2							
Spring 1							
Spring 2		**Test week**					
Summer 1							
Summer 2			**Test week**				

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