Academy: St Nicholas C of E Long Term Map - Year 5 Maths

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13	Week 14	Week 15
Autumn	Number: Place Value			Number: Addition and Subtraction		Number: Multiplication and Division		**Half Term**	Number: M & D	Fractions: A				Consolidation	**End of term**
Spring	Number: Multiplication and Division			Number: Fractions B		Number: Decimals and percentages	**Half Term**	Number: Decimals and Percentages		Measurement: Perimeter and Area		Statistics		***End of term Easter Holiday***	***End of term Easter Holiday***
Summer	Geometry: Properties of Shape			Geometry: Position and Direction		Number: Decimals	**Half term**	Number: Decimals		Number: Negative Numbers	Measurement: Converting Units		Measurement: Volume	Consolidation	***End of term Summer Holiday***

Number and Place Value	**AU**	**SP**	**SU**
• Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit			
• Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000			
• Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero			
• Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000			
• Solve number problems and practical problems that involve all of the above			
• Read Roman numerals to 1000 (M) and recognise years written in Roman numerals			
Addition and Subtraction			
• Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar)			
• Add and subtract numbers mentally with increasingly large numbers			
• Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy			
• Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.			
Multiplication and Division			
• Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers			
• 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			
• Multiply numbers up to 4 digits by a 1 or 2 digit number using a formal written method, including long multiplication for two-digit numbers			
• Multiply and divide numbers mentally drawing upon known facts			
• Divide numbers up to 4 digits by a 1-digit number using the formal written method of short division; interpret remainders appropriately			
• Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000			
• Recognise and use square numbers and cube numbers, and the notation for squared (^{2}) and cubed (^{3})			
• Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes			
• Solve problems involving all four operations and a combination of these, including understanding the meaning of the equals sign			
• Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.			
Fractions (including decimals and percentages)			
• Compare and order fractions whose denominators are all multiples of the same number			
• Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths			

Fractions (including decimals and percentages) - continued	**AU**	**SP**	**SU**
• Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams			
• Read and write decimal numbers as fractions [for example, 0.71 = 71/100]			
• Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents			
• Round decimals with two decimal places to the nearest whole number and to one decimal place			
• Read, write, order and compare numbers with up to three decimal places			
• Solve problems involving number up to three decimal places			
• 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			
• 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.			
Measures			
• Convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre)			
• Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints			
• Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres			
• Calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm2) and square metres (m^2) and estimate the area of irregular shapes			
• Estimate volume [for example, using 1 cm^3 blocks to build cuboids (including cubes)] and capacity [for example, using water]			
• Solve problems involving converting between units of time			
• Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling.			
Properties of Shape			
• Identify 3-D shapes, including cubes and other cuboids, from 2-D representations			
• Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles			
• Draw given angles, and measure them in degrees (o)			
• Indentify: angles at a point and one whole turn (total 360°); angles at a point on a straight line and 1/2 a turn (total 180°) and other multiples of 90°			
• Use the properties of rectangles to deduce related facts and find missing lengths and angles			
• Distinguish between regular and irregular polygons based on reasoning about equal sides and angles			
Position and Direction			
• 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			

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• Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number [for example, 2/5 + 4/5 = 6/5 = 1]				• Solve comparison, sum and difference problems using information presented in a line graph			
• Add and subtract fractions with the same denominator and denominators that are multiples of the same number				• Complete, read and interpret information in tables, including timetables.			