Academy: St Nicholas C of E Long Term Map - Year 6 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, Subtraction, Multiplication and Division					Half Term	Number: + - x /	Number Fractions A		Number Fractions B		Measure: Converting Units	End of term
Spring	Number: Ratio		Number: Algebra		Number: Decimals		**Half Term**	Fractions, Decimals & Percentages		Measure: Perimeter, Area and Volume		Statistics		End of term	End of term
Summer	Geometry: Properties of Shape			Geometry: Position and Direction	Consolidation		**Half term**	Themed Learning Investigations							End of term

Number and Place Value	**AU**	**SP**	**SU**
• Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit			
• Round any whole number to a required degree of accuracy			
• Use negative numbers in context, and calculate intervals across zero			
• Solve number and practical problems that involve all of the above			
Addition and Subtraction & Multiplication and Division			
• Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication			
• Divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context			
• Divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context			
• Perform mental calculations, including with mixed operations and large numbers			
• Identify common factors, common multiples and prime numbers			
• Use their knowledge of the order of operations to carry out calculations involving the four operations			
• Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods			
• Solve problems involving addition, subtraction, multiplication and division			
• Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.			
Fractions (including decimals and percentages)			
• Use common factors to simplify fractions; use common multiples to express fractions in the same denomination			
• Compare and order fractions, including fractions > 1			
• Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions			
• Multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, 1/4 × 1/2 = 1/8]			
• Divide proper fractions by whole numbers [for example, 1/3 ÷ 2 = 1/6]			
• Associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, 3/8]			
• Identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places			
• Multiply one-digit numbers with up to two decimal places by whole numbers			
• Use written division methods in cases where the answer has up to two decimal places			
• Solve problems which require answers to be rounded to specified degrees of accuracy			
• Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.			
Measures			
• Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate			
• Use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places			

Measures	**AU**	**SP**	**SU**
• Convert between miles and kilometres			
• Recognise that shapes with the same areas can have different perimeters and vice versa			
• Recognise when it is possible to use formulae for area and volume of shapes			
• Calculate the area of parallelograms and triangles			
• Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm^3) and cubic metres (m^3), and extending to other units [for example, mm^3 and km^3].			
Properties of Shape			
• Draw 2-D shapes using given dimensions and angles			
• Recognise, describe and build simple 3-D shapes, including making nets			
• Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons			
• Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius			
• Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.			
Position and Direction			
• Describe positions on the full coordinate grid (all four quadrants)			
• Draw and translate simple shapes on the coordinate plane, and reflect them in the axes.			
Statistics			
• Interpret and construct pie charts and line graphs and use these to solve problems			
• Calculate and interpret the mean as an average.			
Algebra			
• Use simple formulae			
• Generate and describe linear number sequences			
• Express missing number problems algebraically			
• Find pairs of numbers that satisfy an equation with two unknowns			
• Enumerate possibilities of combinations of two variables.			
Ratio and Proportion			
• Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts			
• Solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison			
• Solve problems involving similar shapes where the scale factor is known or can be found			
• Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.			

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