Gosberton Academy Long Term Map - Year 6 Maths (2023/2024)

Gosberton ACADEMY

	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	Half Term	Number Fractions:				Properties of Shape	
Spring	Number: Decimals		Number: Percentages		Number: Algebra		Half Term	Measure: Converting Units	Measure: Perimeter, Area and Volume		Number: Ratio		Geometry: Position and Direction	End of term	End of term
Summer	Statistics		Revision in the context of problems				Half term	Investigations and Consolidation of learning							End of term

Number and Place Value	AU	SP	SU	Measures	AU	SP	SU
• Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit				• Convert between miles and kilometres			
• Round any whole number to a required degree of accuracy				• Recognise that shapes with the same areas can have different perimeters and vice versa			
• Use negative numbers in context, and calculate intervals across zero				• Recognise when it is possible to use formulae for area and volume of shapes			
• Solve number and practical problems that involve all of the above				• Calculate the area of parallelograms and triangles			
Addition and Subtraction & Multiplication and Division				• 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].			
• Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication				**Properties of Shape**			
• 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				• Draw 2-D shapes using given dimensions and angles			
• 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				• Recognise, describe and build simple 3-D shapes, including making nets			
• Perform mental calculations, including with mixed operations and large numbers				• Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons			
• Identify common factors, common multiples and prime numbers				• Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius			
• Use their knowledge of the order of operations to carry out calculations involving the four operations				• Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.			
• Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods				**Position and Direction**			
• Solve problems involving addition, subtraction, multiplication and division				• Describe positions on the full coordinate grid (all four quadrants)			
• Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.				• Draw and translate simple shapes on the coordinate plane, and reflect them in the axes.			
Fractions (including decimals and percentages)				**Statistics**			
• Use common factors to simplify fractions; use common multiples to express fractions in the same denomination				• Interpret and construct pie charts and line graphs and use these to solve problems			
• Compare and order fractions, including fractions > 1				• Calculate and interpret the mean as an average.			
• Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions				**Algebra**			
• Multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, 1/4 × 1/2 = 1/8]				• Use simple formulae			
• Divide proper fractions by whole numbers [for example, 1/3 ÷ 2 = 1/6]				• Generate and describe linear number sequences			
• Associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, 3/8]				• Express missing number problems algebraically			

N.B. – These are _suggested_ time frames; if you need to, please spend longer on a block, objectives must be embedded. Consolidation of any learning should focus on place value, the four operations and fractions (inc. decimals and percentages for the older children). Blocks taught should be revisited each term through Cold Maths, lesson starters and when links are made between mathematical concepts e.g. measure and place value. These are curriculum objectives and what you should be teaching from.

• 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				• Find pairs of numbers that satisfy an equation with two unknowns			
• Multiply one-digit numbers with up to two decimal places by whole numbers				• Enumerate possibilities of combinations of two variables.			
• Use written division methods in cases where the answer has up to two decimal places				**Ratio and Proportion**			
• Solve problems which require answers to be rounded to specified degrees of accuracy				• Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts			
• Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.				• Solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison			
Measures				• Solve problems involving similar shapes where the scale factor is known or can be found			
• Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate				• Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.			
• 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							

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