St Luke's Catholic Primary School

Year 6 Maths Objectives

Topic	Objective
Number and Place Value	1. I can read, write, order and compare numbers up to 10,000,000 and determine the value of each digit
	2. I can round any whole number to a required degree of accuracy
	3. I can use negative numbers in context, and calculate intervals across 0
	4. I can solve number and practical problems that involve all of the above
Addition and Subtraction Multiplication and Division	5. I can multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication
	6. I can 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
	7. I can 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
	8. I can perform mental calculations, including with mixed operations and large numbers
	9. I can identify common factors, common multiples and prime numbers
	10. I can use my knowledge of the order of operations to carry out calculations involving the 4 operations
	11. I can solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why
	12. I can solve problems involving addition, subtraction, multiplication and division
	13. I can 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)	14. I can use common factors to simplify fractions; use common multiples to express fractions in the same denomination
	15. I can compare and order fractions, including fractions >1
	16. I can add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions
	17. I can multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, 1/4 x 1/2 = 1/8]
	18. I can divide proper fractions by whole numbers
	19. I can associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, 3/8]
	20. I can identify the value of each digit in numbers given to 3 decimal places and multiply and divide numbers by 10, 100 and 1,000 giving answers up to 3 decimal places
	21. I can multiply one-digit numbers with up to 2 decimal places by whole numbers
	22. I can use written division methods in cases where the answer has up to 2 decimal places
	23. I can solve problems which require answers to be rounded to specified degrees of accuracy
	24. I can recall and use equivalences between simple fractions, decimals and percentages, including in different contexts

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Ration and Proportion	25. I can solve problems involving the relative sizes of 2 quantities where missing values can be found by using integer multiplication and division facts
	26. I can solve problems involving the calculation of percentages [for example, of measures and such as 15% of 360] and the use of percentages for comparison
	27. I can solve problems involving similar shapes where the scale factor is known or can be found
	28. I can solve problems involving unequal sharing and grouping using knowledge of fractions and multiples
Algebra	29. I can use simple formulae
	30. I can generate and describe linear number sequences
	31. I can express missing number problems algebraically
	32. I can find pairs of numbers that satisfy an equation with 2 unknowns
	33. I can calculate enumerate possibilities of combinations of 2 variables
Measurement	34. I can solve problems involving the calculation and conversion of units of measure, using decimal notation up to 3 decimal places where appropriate
	35. I can 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 3 decimal places
	36. I can convert between miles and kilometres
	37. I can recognise that shapes with the same areas can have different perimeters and vice versa
	38. I can recognise when it is possible to use formulae for area and volume of shapes
	39. I can calculate the area of parallelograms and triangles
	40. I can calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres and cubic metres, and extending to other units
Shape	41. I can draw 2-D shapes using given dimensions and angles
	42. I can recognise, describe and build simple 3-D shapes, including making nets
	43. I can compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons
	44. I can illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius
	45. I can recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles
Position and Directi	46. I can describe positions on the full coordinate grid (all 4 quadrants)
	47. I can draw and translate simple shapes on the coordinate plane, and reflect them in the axes
Statistics	48. I can interpret and construct pie charts and line graphs and use these to solve problems
	49. I can calculate and interpret the mean as an average