Woodhouse Primary School

Coverage of Maths National Curriculum objectives

Rationale: At Woodhouse Primary School we encourage our pupils to be confident, resilient mathematicians with a love of learning and no fear of 'grappling' with difficult concepts and those expressed in an unfamiliar way. In our school, children are scaffolded, extended and supported through rapid teacher intervention, use of equipment and choice of strategies e.g. jottings/mental/resources. As such teaching is both enabling and extending.

Year group: Year 6	
Place value	1. Read, write and order numbers to 10,000,000 and determine the value of each digit
	2. Round any whole number to a required degree of accuracy
	3. Use negative numbers in context and calculate intervals across zero
Four operations (A, S, M, D)	4. Multiply multi-digit numbers up to 4 digits by a 2 digit whole number using long multiplication
	5. Divide numbers up to 4 digits by a 2 digit whole number using long division; interpret remainders as whole number remainders, fractions or by rounding
	6. Divide numbers of up to 4 digits by a 2 digit number using short division and interpret remainders
	7. Perform mental calculations including with mixed operations and large numbers
	8. Identify common factors, common multiples and prime numbers
	9. Use their knowledge of the order of operations to carry out calculations involving the 4 operations
	10. Solve multi-step problems involving the 4 operations
	11. Use estimation to check answers to calculations and determine and appropriate degree of accuracy
Fractions	12. Use common factors to simplify fractions; use common multiples to express fractions in the same den.
	13. Compare and order fractions including fractions >1
	14. Add and subtract fractions with different den. and mixed numbers
	15. Multiply simple pairs of proper fractions writing the answer in its simplest form
	16. Divide proper fractions by whole numbers
	17. Associate a fraction with division and calculate decimal fraction equivalents for a simple fraction
	18. Identify the value of each digit in numbers to 3dp and x/÷ numbers by 10/100/1000 giving answers to 3dp
	19. Multiply 1 digit numbers with up to 2 dp by whole numbers
	20. Use written division methods in cases where the answer has up to 2dp
	21. Solve problems which require answers to be rounded to a specific degree of accuracy
	22. Recall and use equivalences between simple fractions, decimals and percentages
Ratio/pr oportion	23. Solve problems involving the relative sizes of two quantities where missing values can be found using integer x/÷ facts
	24. Solve problems involving the calculation of percentages and the use of percentages for comparison
	25. Solve problems involving similar shapes where the scale factor is known or can be found

	26. Solve problems involving unequal sharing and grouping using knowledge of fractions/multiples	
Algebra	27. Use simple formulae	
	28. Generate and describe linear number sequences	
	29. Express missing number problems algebraically	
	30. Find pairs of numbers that satisfy an equation with 2 unknowns	
	31. Enumerate possibilities of combinations of two variables	
Measure	32. Solve problems involving the conversion of units of measure using decimal notation up to 3dp	
	33. Use, read, write and convert between standard units using decimal notation of up to 3dp	
	34. Convert between miles and km	
	35. Recognise that shapes with the same areas can have different perimeters and vice versa	
	36. Recognise when it is possible to use formulae for area and volume of shapes	
	37. Calculate the area of parallelograms and triangles	
	38. Calculate, estimate and compare volume of cubes/cuboids using standard units	
Geometry	39. Draw 2D shapes using given dimensions and angles	
	40. Recognise, describe and build simple 3D shapes (including making nets)	
	41. Compare and classify geometric shapes based on their properties and find unknown angles in any triangles, quadrilaterals and regular polygons	
	42. Illustrate and name parts of circles including radius, diameter and circumference and know that the diameter is twice the radius	
	43. Recognise angles at a point, on a straight line or vertically opposite to find missing angles	
	44. Describe positions on the full coordinate grid (all 4 quadrants)	
	45. Draw and translate simple shapes on the coordinate plane and reflect them in the axes	
Stats	46. Interpret and construct pie charts and line graphs and use these to solve problems	
	47. Calculate and interpret the mean as an average	