

# 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 5

Place value	1. Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit
	2. Count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000
	3. Interpret negative numbers in context, count forwards or backwards with pos/neg whole numbers
	4. Round any number up to 1,000,000 to the nearest 10, 100, 1000, 10000 and 100000
	5. Read Roman numerals to 1000 (M) and recognise years written in Roman numerals
Add/Sub	6. Add and subtract whole numbers with more than 4 digits including using formal written methods
	7. Add and subtract numbers mentally with increasingly large numbers
	8. Use rounding to check answers to calculations and determine levels of accuracy
	9. Solve addition and subtraction multi-step problems
Mult/Div	10. Identify multiples/factors including finding all factor pairs for a number & common factors of 2 numbers
	11. Know and use the vocabulary of prime numbers, prime factors and composite numbers
	12. Establish whether a number up to 100 is prime and recall prime numbers up to 19
	13. Multiply numbers up to 4 digits by 1 or 2 digit numbers using a formal written method
	14. Multiply/divide numbers mentally drawing upon known facts
	15. Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders
	16. Multiply/divide whole numbers and those involving decimals by 10, 100 and 1000
	17. Recognise and use square numbers and cube numbers and the relevant notation
	18. Solve problems involving $\times/\div$ including using their knowledge of multiples/factors/squares/cubes
	19. Solve problems involving $\times/\div$ including scaling by simple fractions and problems involving simple rates
Fractions	20. Compare and order fractions whose denominators are all multiples of the same number
	21. Identify, name and write equivalent fractions of a given fraction including tenths and hundredths
	22. Recognise mixed numbers and improper fractions and convert from one form to the other
	23. Add and subtract fractions with the same den. and den. that are multiples of the same number
	24. Multiply proper fractions and mixed numbers by whole numbers, supported by materials/diagrams
	25. Read and write decimal numbers as fractions

	26. Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents
	27. Round decimals with 2 dp to the nearest whole number or 1 dp
	28. Read, write, order and compare numbers with up to 3dp
	29. Recognise the % symbol; write percentages as a fraction with denominator 100 and as a decimal
	30. Solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}$ , $\frac{1}{4}$ , $\frac{1}{5}$ , $\frac{2}{5}$ , $\frac{4}{5}$ and those fractions with a denominator of a multiple of 10 or 25
Measure	31. Convert between different units of metric measure (e.g. km/m, cm/m, cm/mm, g/kg, l/ml)
	32. Understand use approximate equivalences between metric units and common imperial units (in, lb, pints)
	33. Measure and calculate the perimeter of composite rectilinear shapes in cm and m
	34. Calculate and compare the area of rectangles using $\text{cm}^2$ and $\text{m}^2$ ; estimate area of irregular shapes
	35. Estimate volume and capacity
	36. Solve problems involving converting between units of time
	37. Use all 4 operations to solve problems involving measure using decimal notation including scaling
Geometry	38. Identify 3D shapes from 2D representations
	39. Estimate and compare acute, obtuse and reflex angles
	40. Draw given angles and measure them in degrees
	41. Identify: angles at a point and a whole turn; angles at a point and on a straight line; other multiples of $90^\circ$
	42. Use the properties of rectangles to deduce related facts and find missing lengths/angles
	43. Distinguish between regular and irregular polygons based on reasoning about equal sides/angles
Stats	44. Identify, describe and represent the position of a shape following a reflection or translation
	45. Solve comparison, sum and difference problems using information presented in a line graph
	46. Complete, read and interpret information in tables, including timetables