



Moorland Primary School – Progression of Knowledge in Maths

Year 3	Place value	Addition and subtraction	Multiplication and division	Fractions	Measurement
	<p>COUNTING Count from 0 in multiples of 4, 8, 50 and 100. Find 10 or 100 more or less than a given number.</p> <p>COMPARING NUMBERS Compare and order numbers up to 1 000.</p> <p>IDENTIFYING, REPRESENTING AND ESTIMATING NUMBERS Identify, represent and estimate numbers using different representations.</p> <p>READING AND WRITING NUMBERS Read and write numbers up to 1 000 in numerals and in words. Read Roman numerals from I to XII.</p> <p>UNDERSTANDING PLACE VALUE Recognise the place value of each digit in a three-digit number (hundreds, tens, ones).</p> <p>PROBLEM SOLVING Solve number problems and practical problems involving these ideas.</p>	<p>MENTAL CALCULATION Add and subtract numbers mentally, including: *a three-digit number and ones *a three-digit number and tens *a three-digit number and hundreds</p> <p>WRITTEN METHODS Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction.</p> <p>INVERSE OPERATIONS, ESTIMATING AND CHECKING ANSWERS Estimate the answer to a calculation and use inverse operations to check answers.</p> <p>PROBLEM SOLVING Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction</p>	<p>MULTIPLICATION & DIVISION FACTS Count from 0 in multiples of 4, 8, 50 and 100 (copied from Number and Place Value) Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.</p> <p>MENTAL CALCULATION Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for twodigit numbers times one-digit numbers, using mental and progressing to formal written methods</p> <p>WRITTEN CALCULATION Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for twodigit numbers times one-digit numbers, using mental and progressing to formal written methods</p> <p>INVERSE OPERATIONS, ESTIMATING AND CHECKING ANSWERS Estimate the answer to a calculation and use inverse operations to check answers</p> <p>PROBLEM SOLVING Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects.</p>	<p>COUNTING IN FRACTIONAL STEPS Count up and down in tenths.</p> <p>RECOGNISING FRACTIONS Recognise, find and write fractions of a discrete set of objects: unit fractions and nonunit fractions with small denominators. Recognise that tenths arise from dividing an object into 10 equal parts and in dividing onedigit numbers or quantities by 10. Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators.</p> <p>COMPARING FRACTIONS Compare and order unit fractions, and fractions with the same denominators.</p> <p>EQUIVALENCE Recognise and show, using diagrams, equivalent fractions with small denominators.</p> <p>ADDITION AND SUBTRACTION Add and subtract fractions with the same denominator within one whole (e.g. $5/7 + 1/7 = 6/7$)</p> <p>PROBLEM SOLVING Solve problems that involve all of the above.</p>	<p>COMPARING & ESTIMATING Compare durations of events, for example to calculate the time taken by particular events or tasks. Estimate and read time with increasing accuracy to the nearest minute. Record and compare time in terms of seconds, minutes, hours and o'clock. Use vocabulary such as a.m./p.m., morning, afternoon, noon and midnight (appears also in Telling the Time)</p> <p>MEASURING & CALCULATING Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml). Measure the perimeter of simple 2-D shapes.</p> <p>MONEY Add and subtract amounts of money to give change, using both £ and p in practical contexts.</p> <p>TELLING THE TIME Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks. Estimate and read time with increasing accuracy to the nearest minute. Record and compare time in terms of seconds, minutes, hours and o'clock. Use vocabulary such as a.m./p.m., morning, afternoon, noon and midnight. (appears also in Comparing and Estimating).</p> <p>CONVERTING Know the number of seconds in a minute and the number of days in each month, year and leap year.</p>



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Year	Geometry	Statistics	Algebra
3	<p>Recognise angles as a property of shape or a description of a turn Identify right angles Recognise that 2 right angles make a half turn, 3 make three quarters of a turn, and 4 make a complete turn Identify whether angles are greater than or less than a right angle Identify horizontal and vertical lines. Identify pairs of perpendicular and parallel lines Draw 2D shapes and make 3D shapes using modelling material Recognise 3D shapes in different orientations and describe them</p>	<p>Interpret and present data using bar charts, pictograms and tables. Solve one-step and two-step questions [e.g. 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables.</p>	<p>Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction. (copied from Addition and Subtraction) Solve problems, including missing number problems, involving multiplication and division, including integer scaling</p>