

Numeracy Expectations Year 3

Counting	Place Value	Comparing and Ordering	Roman Numerals	X by power of 10	Solving Number Problems
<p>Count from 0 in multiples of 4, 8, 50 and 100</p> <p>Count up and down in tenths</p>	<p>Read and write numbers up to 1000 in numerals and in words.</p> <p>Read and write numbers with one decimal place</p> <p>Recognise the place value of each digit in a three-digit number (hundreds, tens, ones) Identify the value of each digit to one decimal place</p> <p>Partition numbers in different ways (for example, $146 = 100 + 40 + 6$ and $146 = 130 + 16$)</p> <p>Identify, represent and estimate numbers using different representations, including the number line.</p>	<p>Compare and order numbers up to 1000</p> <p>Compare numbers with one decimal place</p> <p>Find 10 or 100 more or less than a given number.</p> <div style="background-color: #6699CC; text-align: center; padding: 5px;">Rounding, approximation and estimation</div> <p>Round numbers to at least 1000 to the nearest 10 or 100</p>	<p>Read Roman numerals from I to XII (see time)</p>	<p>Find the effect of multiplying a one- or two-digit number by 10 and 100, identify the value of the digits in the answer</p>	<p>Solve number problems and practical problems involving these ideas.</p>

Understanding addition and subtraction	Addition and subtraction facts	Addition and Subtraction (Mental)	Addition and Subtraction (written)	Estimating and checking	Solving + and – problems including those with missing numbers
<p>Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method)</p> <p>Understand and use take away and difference for subtraction, deciding on the most efficient method for the numbers involved, irrespective of context</p>	<p>Recall and use addition and subtraction facts for 100 (multiples of 5 and 10)</p> <p>Derive and use addition and subtraction facts for 100</p> <p>Derive and use addition and subtraction facts for multiples of 100 totalling 1000</p>	<p>Add and subtract numbers mentally, including:</p> <ul style="list-style-type: none"> - a three-digit number and ones - a three-digit number and tens - a three-digit number and hundreds 	<p>Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction</p>	<p>Estimate the answer to a calculation and use inverse operations to check answers</p>	<p>Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction</p>

Understanding \times and \div	\times and \div facts	Mental Methods	Written Methods	Solving \times and \div problems including those with missing numbers	Understanding fractions
<p>Understand that division is the inverse of multiplication and vice versa.</p> <p>Understand how multiplication and division statements can be represented using arrays</p> <p>Understand division as sharing and grouping and use each appropriately</p>	<p>Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables</p>	<p>Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental methods.</p>	<p>Write and calculate mathematical statements for multiplication using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, progressing to formal written methods</p> <p>Write and calculate mathematical statements for division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, progressing to efficient written methods</p>	<p>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>Show practically or pictorially that a fraction is one whole number divided by another.</p> <p>Understand that finding a fraction of an amount relates to division</p>

Fractions of shapes objects and quantities	Counting, comparing and ordering fractions	Calculating with Fractions	Length/Height	Perimeter	Area
<p>Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators</p> <p>Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators</p> <p>Recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10</p>	<p>Count on and back in steps of $\frac{1}{2}$, $\frac{1}{4}$ and $\frac{1}{3}$</p> <p>Compare and order unit fractions and fractions with the same denominators (including on a number line)</p>	<p>Add and subtract fractions with the same denominator within one whole (using diagrams) (for example, $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$)</p>	<p>Measure, add and subtract lengths(m/cm/mm)</p> <p>Compare lengths (m/cm/mm)</p>	<p>Understand that perimeter is a measure of distance around the boundary of a shape.</p> <p>Measure the perimeter of simple 2D shapes.</p>	<p>Understand that area is a measure of surface within a given boundary.</p> <p>Find the area of rectilinear shapes by counting squares.</p>
	<p>Equivalence</p>	<p>Solving problems involving fractions, decimals and percentages</p>			
	<p>Recognise and show, using diagrams, equivalent fractions with small denominators</p>	<p>Solve problems that involve all of the above.</p>			

Mass	Capacity/Volume	Temperature	Time	Money	Solving problems involving money and measures
<p>Measure, add and subtract mass (kg/g)</p> <p>Compare mass (kg/g)</p>	<p>Measure, add and subtract volume/capacity (L and ml)</p> <p>Compare volume/capacity (L and ml)</p>	<p>Continue to estimate and measure temperature to the nearest degree (°C)</p>	<p>Record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight</p> <p>Know the number of seconds in a minute, and the number of days in each month, year and leap year</p> <p>Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24- hour clocks</p> <p>Estimate and read time with increasing accuracy to the nearest minute</p> <p>Compare durations of events (for example to calculate the time taken by particular events or tasks)</p>	<p>Continue to recognise and use symbols for pounds (£) and pence (p) and understand that the decimal point separates pounds and pence</p> <p>Recognise that ten 10p coins are equivalent to £1 and that each coin is $\frac{1}{10}$ of £1</p> <p>Add and subtract amounts of money to give change, using both £ and p in practical contexts</p>	<p>Solve problems involving money and simple problems involving passage of time.</p>

Properties of shape	Angles	Sorting Shapes	Coordinates(including reflection and translation)	Present and interpret data	Solve problems using Data
<p>Draw 2D shapes and describe them.</p> <p>Identify horizontal lines and vertical lines and pairs of perpendicular and parallel lines.</p> <p>Compare and classify geometric shapes based on their properties.</p>	<p>Recognise angles as a property of shape or a description of a turn.</p> <p>Identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle</p>	<p>Continue to compare and sort common 2D and 3D shapes and everyday objects.</p>	<p>Describe positions on a square grid labelled with letters and numbers.</p>	<p>Interpret and present data using bar charts,pictograms and tables.</p>	<p>Solve one-step and two-step questions (for example, 'How many more?' and 'How many fewer?') using information presented in scaled bar charts and pictograms and tables</p>