

Numeracy Objectives – Year 3

Number – number and place value	Number – addition and subtraction	Number – multiplication and division
<ul style="list-style-type: none"> count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number recognise the place value of each digit in a two-digit number (tens, ones) read and write numbers to at least 100 in numerals and in words (previously included reading and writing 3 digit numbers) compare and order numbers from 0 up to 100; use <, > and = signs identify, represent and estimate numbers using different representations, including the number line round any number to the nearest 10 use place value and number facts to solve problems. 	<ul style="list-style-type: none"> solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction. <p>solve problems involving addition, subtraction, multiplication and division e.g. If I double a number and add six and the answer is 18, what was the number?</p> <ul style="list-style-type: none"> Complements to 100 estimate the answer to a calculation and use inverse operations to check answers <p>e.g. using rounding</p> <ul style="list-style-type: none"> add and subtract numbers mentally, including: <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 including expanded method of columnar addition and subtraction - where appropriate - ie. Only use when a mental method or jotting is not more efficient</p>	<ul style="list-style-type: none"> 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. Understand scaling a number by a scale factor of 3 as making the number (or measurement) 3 times larger <p>Link scaling to the understanding of multiplication e.g. $6+6+6 = 6 \times 3$</p> <ul style="list-style-type: none"> recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables doubling facts of multiples of 10 up to double 100 Counting in 6s, 7s, 9s, 11s, 12s Connect 2, 4 and 8x through doubling Understand remainders in the context of division write estimate 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 and progressing to formal written methods
		<p>Measurement</p> <ul style="list-style-type: none"> measure, using appropriate tools and units-progressing to using a wider range of measures, including mixed units e.g. 1kg and 200g), compare and find simple equivalents e.g. 5m = 500cm, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) measure the perimeter of simple 2-D shapes <ul style="list-style-type: none"> The comparison of measures includes simple scaling by integers (e.g. a given quantity or measure is twice as long or 5 times as high) and this connects to multiplication add and subtract amounts of money to give change, using both

		£ and p in practical contexts What about multiplication and division of money in Years 2 and 3? <ul style="list-style-type: none"> tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks (am & pm) estimate and read time with increasing accuracy to the nearest minute; 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 know the number of seconds in a minute and the number of days in each month, year and leap year <p>compare durations of events [for example to calculate the time taken by particular events or tasks].</p>
Number – fractions	Ratio and Proportion	
<ul style="list-style-type: none"> recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators recognise and use fractions as numbers: unit fractions and non-unit fractions (understand what they are) with small denominators Add in 1/5, 1/6, 2/3, 3/5. Decimals – link to money i.e. tenths / hundredths. Link to division. E.g. 15 divided by 3 is 15/3 <p>Ongoing <=></p> <ul style="list-style-type: none"> count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10 compare and order unit fractions, and fractions with the same denominators read, write, order and compare numbers up to one decimal place (money link). <p>Counting in 1/5 1/10, 1/100</p> <ul style="list-style-type: none"> add and subtract fractions with the same denominator within one whole [for example, $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$] Also under 10. Sharing and division link <p>Complements of 1 to 1dp (2dp with money)</p> <ul style="list-style-type: none"> solve problems that involve all of the above. and simple measures (cm-m, kg/g, l, ml and money (see y4). Find unit fractions of amounts. E.g 1/2, 1/3, 1/4 of 12kg 	<ul style="list-style-type: none"> Solve problems involving similar shapes where the scale factor is known. Recognise more complex regular (and simple irregular) patterns e.g. 2 red, 3 green and 4 blue and comment on them. RRGGBBBB <p>Next one RGGRRGGRRG 3 green 2 red.</p>	
	Geometry –	
	<ul style="list-style-type: none"> draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them recognise angles as a property of shape or a description of a turn 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>identify horizontal and vertical lines and pairs of perpendicular and parallel lines. – previously Y5</p>	
		Algebra
		<ul style="list-style-type: none"> Counting in constant steps, related to repeated addition and times tables Two step function machines Build linear sequences practically with straws and cubes Growing linear patterns Extend balance puzzles with eg shapes as numbers, more than one variable Generate simple formulae with eg simple shapes and 'Taktiles' Concept of algebraic notation eg practical missing number envelopes
		Statistics
		<ul style="list-style-type: none"> interpret and present data using bar charts, pictograms and tables 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.

