

Numeracy Objectives – Year 4

Number – number and place value	Number – addition and subtraction	Number – multiplication and division
<ul style="list-style-type: none"> ▪ count in multiples of 6, 7, 9, 25 and 1000 ▪ count backwards through zero to include negative numbers ▪ find 1000 more or less than a given number ▪ recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones) ▪ order and compare numbers beyond 1000 ▪ identify, represent and estimate numbers using different representations ▪ round any number to the nearest 10, 100 or 1000 ▪ solve number and practical problems that involve all of the above and with increasingly large positive numbers ▪ read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value 	<ul style="list-style-type: none"> ▪ solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why. ▪ Complements to 1000 ▪ estimate and use inverse operations to check answers to a calculation ▪ add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction (+ money / decimals) where appropriate - ie. Only use when a mental method or jotting is not more efficient ▪ Continue to add and subtract mentally using jottings if appropriate. ▪ Use understanding of the value of the number to decide when to calculate mentally and when to use written method. 	<ul style="list-style-type: none"> ▪ recall multiplication and division facts for multiplication tables up to 12 × 12 ▪ doubling facts of multiples of 100/1000 ▪ doubling multiples of 10 beyond 100 ▪ use place value e.g. $600 \div 3 = 200$, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers ▪ recognise and use factor pairs and commutativity in mental calculations e.g. $18 \times 6 = 2 \times 9 \times 2 \times 3 = 9 \times 3 \times 2 \times 2 = 108$ ▪ Interpret remainders, rounding up or down depending on context ▪ Estimate and multiply two-digit and three-digit numbers by a one-digit number using a formal written layout including grid method ▪ Short division of $TU \div U$ and $HTU \div U$ ▪ Use mental arithmetic strategies when appropriate, e.g. partitioning, chunking and jottings ▪ Doubling numbers 1-100 as a strategy ▪ multiply and divide whole numbers and those involving decimals by 10 and 100
Number – fractions	Geometry – properties of shapes	
<ul style="list-style-type: none"> ▪ recognise and show, using diagrams, families of common equivalent fractions ▪ recognise and write decimal equivalents of any number of tenths or hundredths ▪ recognise and write decimal equivalents to $\frac{1}{4}, \frac{1}{2}, \frac{3}{4}, \frac{1}{5}$ ▪ compare numbers with the same number of decimal places up to two decimal places ▪ Ongoing <=> ▪ count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten. Number line ▪ read, write, order and compare numbers with up to two decimal places (or 3 in measures) ▪ round decimals with one decimal place to the nearest whole number ▪ add and subtract fractions with the same denominator beyond one whole, and convert to a mixed number ▪ find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths 	<ul style="list-style-type: none"> ▪ compare and classify geometric shapes, including quadrilaterals - prev Y7 and triangles, based on their properties and sizes ▪ identify acute and obtuse angles and compare and order angles up to two right angles by size ▪ identify lines of symmetry in 2-D shapes presented in different orientations - previously Y2 ▪ complete a simple symmetric figure with respect to a specific line of symmetry. 	
	Geometry – position and direction	Measurement
	<ul style="list-style-type: none"> • describe positions on a 2-D grid as coordinates in the first quadrant • describe movements between positions as translations of a given unit to the left/right and up/down • plot specified points and draw sides to complete a given polygon. 	<ul style="list-style-type: none"> ▪ Convert between different units of measure [for example, kilometre to metre; hour to minute] ▪ measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres ▪ find the area of rectilinear shapes by counting squares- relate area to arrays and multiplication. ▪ estimate, compare and calculate different measures, including money in pounds and pence ▪ read, write and convert time between analogue and digital 12- and 24-hour clocks
	Statistics	
	<ul style="list-style-type: none"> ▪ interpret and present data using bar charts, pictograms and 	

<ul style="list-style-type: none"> Sharing and division link Complements of 1 to 1 and 2 dp. E.g. $0.8 + 0.2 = 1.0$, $0.83 + 0.17 = 1.00$ etc <ul style="list-style-type: none"> solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number Find both unit and non-unit fractions of amnts. E.g. $\frac{3}{8}$ of £24 solve simple measure and money problems involving fractions and decimals to two decimal places.(3 with measures). 	<p>tables</p> <ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.
<p>Ratio and proportion</p>	<p>Algebra</p>	<p>Money</p>
<ul style="list-style-type: none"> Solve problems involving similar shapes where the scale factor is known. Solve simple problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts e.g. I use 3l red and 1l white tubs of paint to make 4l of pink. How many red paint tubs do I need for 12l of pink? 	<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 	<ul style="list-style-type: none"> estimate, compare and calculate different measures, including money in pounds and pence