

## **Numeracy Support Strands**

Curriculum Strand	Learning Objective Curriculum Sub-strand	Year 3 Support Strands	Year 2 Support Strands
NUMBER AND PLACE VALUE	<ul> <li>✓ 4N2a - Order and compare numbers beyond 1000</li> <li>✓ 4N2b- Find 1000 more or less than a given number</li> <li>✓ 4N3a - Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)</li> <li>✓ 4N3b - 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.</li> </ul>	<ul> <li>✓ 3N1b - Count from 0 in multiples of 4 and 8.</li> <li>✓ 3N2a - Compare and order numbers up to 1000, Read and write numbers to 1000 in numerals and in words</li> <li>✓ 3N2b - Find 10 or 100 more or less than a given number</li> <li>✓ 3N3 - Recognise the place value of each digit in a three-digit number (hundreds, tens, ones)</li> <li>✓ 3N4 - Identify, represent and estimate numbers using different representations</li> <li>✓ 3N6 - Solve number problems and practical problems involving 3N1 – 3N5</li> </ul>	<ul> <li>✓ 2N1 - Count in steps of 2, 3 and 5 from zero and in tens from any number, forward or backward</li> <li>✓ 2N2a - Read and write numbers to at least 100 in numerals</li> <li>✓ 2N2b - Compare and order numbers from 0 up to 100; use &lt;, &gt; and = sigs</li> <li>✓ 2N3 - Recognise the place value of each digit in a two-digit number (tens, ones)</li> <li>✓ 2N4 - Identify, represent and estimate numbers using different representations, including the number line</li> <li>✓ 2N6 - Number and place value problem solving and reasoning</li> </ul>
CALCULATIONS (+ and -) 	<ul> <li>✓ 4C3 - Estimate and use inverse operations to check answers to a calculation</li> <li>✓ 4C4 - Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why</li> </ul>	<ul> <li>✓ 3C1 - Add and subtract numbers mentally, including:</li> <li>✓ a three-digit number and ones</li> <li>✓ a three-digit number and tens</li> <li>✓ a three-digit number and hundreds</li> <li>✓ 3C2 - Add and subtract numbers with up to three digits, using formal written methods of column addition</li> <li>✓ 3C3 - Estimate the answer to a calculation and use inverse operations to check answers</li> <li>✓ 3C4 - Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction</li> </ul>	✓ 2C1 - Recall and use addition and subtraction facts to 20 fluently  ✓ 2C2a - Add and subtract numbers mentally, including:  - A two-digit number and ones  - A two-digit number and tens  - Two two-digit numbers  - Adding three one-digit numbers  ✓ 2C2b - Add and subtract numbers using concrete objects, pictorial representations, and mentally, including:  - A two-digit number and ones  - A two-digit number and tens  - Two two-digit numbers  ✓ 2C3 - Recognise and use the inverse relationships between addition and subtraction and use this to check calculations and

#### Year 4

## **Numeracy Support Strands**

			2C9a - Show that addition of two numbers can be done in any order (commutative) and subtraction of one number by another cannot
CALCULATIONS (x and ÷)	multiplication tables up to 12 × 12  4C6b - Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers	<ul> <li>✓ 3C6 – Recall and use division facts for the 3, 4 and 8 multiplication tables</li> <li>✓ 3C7 - Write and calculate mathematical statements for multiplication and division using the multiplication tables that the children know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods</li> <li>✓ 3C8 – Solve problems including missing number problems, involving multiplication and division, including integer scaling problems and correspondence problems in which n objects are connected to m objects.</li> </ul>	<ul> <li>✓ 2C6 - Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers</li> <li>✓ 2C7 - Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (x), division (÷) and equals (=) signs</li> <li>✓ 2C8 -Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts</li> <li>✓ 2C9b - Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot</li> </ul>
FRACTIONS	hundredths arise when dividing an object by one hundred and dividing tenths by ten  4F2 - Recognise and show, using diagrams, families of common equivalent fractions  4F4 - Add and subtract fractions with the same denominator  4F6a - Recognise and write decimal equivalents to 1/4, 1/2, 3/4  4F6b - Recognise and write decimal equivalents of any number of tenths or hundredths	<ul> <li>✓ 3F1a - 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</li> <li>✓ 3F1b - Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators</li> <li>✓ 3F1c - Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators</li> <li>✓ 3F2 - Recognise and show, using diagrams, equivalent fractions with small denominators</li> <li>✓ 3F3 - Compare and order unit fractions and fractions with the</li> </ul>	<ul> <li>✓ 2F1a - Recognise, find, name and write fractions <sup>1</sup>/<sub>3</sub>, <sup>1</sup>/<sub>4</sub>, <sup>2</sup>/<sub>4</sub> and <sup>3</sup>/<sub>4</sub> of a length, shape, set of objects or quantity</li> <li>✓ 2F1b - Write simple fractions for example <sup>1</sup>/<sub>2</sub> of 6 = 3</li> <li>✓ 2F2 - Recognise the equivalence of <sup>2</sup>/<sub>4</sub> and <sup>1</sup>/<sub>2</sub>.</li> </ul>



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FRACTIONS	nearest whole number  ✓ 4F8 -Compare numbers with the same number of decimal places up to two decimal places  ✓ 4F9 - 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  ✓ 4F10 - 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  ✓ 4F10b - Solve simple measure and money problems involving fractions and decimals to two decimal places	same denominator.  ✓ 3F4 - Add and subtract fractions with the same denominator within one whole [for example, $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$ ]  ✓ 3F10 – Solve problems that involve 3F1 – 3F4	
MEASUREMENT	<ul> <li>✓ 4M1 – Compare different measures, including money in pounds and pence</li> <li>✓ 4M2 - Estimate, compare and calculate different measures, including money in pounds and pence</li> <li>✓ 4M5 - Convert between different units of measure [e.g: kilometre to metre, hour to minute]</li> <li>✓ 4M7a - Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres</li> <li>✓ 4M7b - Find the area of rectilinear shapes by counting squares.</li> <li>✓ 4M9 - Calculate different measures, including money in pounds and pence</li> </ul>	✓ 3M1a – Compare lengths (m/cm/mm)  ✓ 3M1b – Compare mass (kg/g)  ✓ 3M1c – Compare volume (I/mI)  ✓ 3M2a - Measure lengths (m/cm/mm)  ✓ 3M2b – Measure Mass (kg/g)  ✓ 3M2c – Measure volume (I/mI)  ✓ 3M7– Measure the perimeter of simple 2d shapes  ✓ 3M9b – Add and subtract lengths (m/cm/mm)  ✓ 3M9c – Add and subtract mass (kg/g)  ✓ 3M9d – Add and subtract volume/capacity (I/mI)	✓ 2M1 - Compare and order lengths, mass, volume / capacity ✓ 2M2 - Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (ºC); capacity (litres/ml) to the nearest appropriate unit using rulers, scales, thermometers and measuring vessels
MEASUREMENT (MONEY)	<ul> <li>✓ 4M1 – Compare different measures, including money in pounds and pence</li> <li>✓ 4M2 - Estimate, compare and calculate different measures, including money in pounds and pence</li> <li>✓ 4M9 - Calculate different measures, including money in pounds and pence</li> </ul>	✓ 3M9a - Add and subtract amounts of money to give change, using both £ and p in practical contexts	<ul> <li>✓ 2M3a – Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value</li> <li>✓ 2M3b – Find different combinations of coins that equal the same amounts of money</li> <li>✓ 2M9 – Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change</li> </ul>

#### Year 4

# **Numeracy Support Strands**

MEASUREMENT (TIME)	<ul> <li>✓ 4M4a - Read, write and convert time between analogue and digital 12hour clocks</li> <li>✓ 4Mb - Read, write and convert time between analogue and digital 24-hour clocks</li> <li>✓ 4M4c - Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days</li> <li>✓ 4M5 - Convert between different units of measure [e.g: kilometre to metre, hour to minute]</li> </ul>	<ul> <li>✓ 3M4a - Tell and write the time from an analogue clock; 12-hour clocks</li> <li>✓ 3M4b - Tell and write the time from an analogue clock; 24 hour clocks</li> <li>✓ 3M4c - Tell and write the time from an analogue clock, including using Roman numerals from I to XII</li> <li>✓ 3M4d - 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, am/pm, morning, afternoon, noon and midnight</li> <li>✓ 3M4e - Know the number of seconds in a minute and the number of days in each month, year and leap year</li> <li>✓ 3M4f - Compare durations of events, [for example, to calculate the time taken by particular events or tasks]</li> </ul>	<ul> <li>✓ 2M4a - Tell and write the time to five minutes, including quarter past/to the hour an draw the hands on a clock face to show these times</li> <li>✓ 2M4b – Compare and sequence intervals of time</li> <li>✓ 2M4C - Know the number of minutes in an hour and the number of hours in a day.</li> </ul>
GEOMETRY (SHAPE)	<ul> <li>✓ 4G2a - Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes</li> <li>✓ 4G42b - Identify lines of symmetry in 2-D shapes presented in different orientations.</li> <li>✓ 4G2c - Complete a simple symmetric figure with respect to a specific line of symmetry</li> <li>✓ 4G4 - Identify acute and obtuse angles and compare and order angles up to two right angles by size</li> </ul>	<ul> <li>✓ 3G2 – Identify horizontal, vertical lines and pairs of perpendicular and parallel lines</li> <li>✓ 3G3a -Draw 2-d shapes</li> <li>✓ 3G3b – Make 3d shapes using modelling materials; recognise 3d shapes in different orientations and describe them</li> <li>✓ 3G4a - Recognise that angles are a property of shape or a description of a turn</li> <li>✓ w3G4b - 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</li> </ul>	<ul> <li>✓ 2G1a - Compare and sort common 2-D and 3-D shapes and everyday objects</li> <li>✓ 2G1b - Compare and sort common 3d shapes and everyday objects</li> <li>✓ 2G2a - identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line</li> <li>✓ 2G2b- identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces</li> <li>✓ 2G3 - identify 2-D shapes on the surface of 3-D shapes, e.g. a circle on a cylinder and a triangle on a pyramid</li> </ul>
GEOMETRY (POSITION/ DIRECTION)	<ul> <li>✓ 4P2 - Describe movements between positions as translations of a given unit to the left/right and up/down</li> <li>✓ 4P3a - Describe positions on a 2-D grid as coordinates in the first quadrant</li> <li>✓ 4P3b - Plot specified points and draw sides to complete a given polygon.</li> </ul>		<ul> <li>✓ 2P1 - order and arrange combinations of mathematical objects in patterns and sequences</li> <li>✓ 2P2 - use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise)</li> </ul>

#### Year 4

#### **Numeracy Support Strands**

#### **STATISTICS**

- 4S1 Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs
- 4S2 Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs
- 3S1 Interpret and present data using bar charts, pictograms and tables
- √ 3S2 Solve one-step and two-step questions (eg: 'How many more?' and 'How many fewer?') using information presented in scaled bar charts and pictograms and tables
- ✓ 2S1 Interpret and construct simple pictograms, tally charts, block diagrams and simple tables
- 2S2a Ask and answer simple questions by counting the number of objects in each category and sorting the catagories by quantity
- 2S2b Ask and answer questions about totalling and comparing categorical data.