

**Y4 medium-term immersion plan - learning sequence 1**

Week	1	2	3	4	5	6	7	8	9	10	11	12
Number and place value	<ul style="list-style-type: none"> <li>count in multiples of 6, 7, 9, 25 and <b>10, 100</b> and 1000 <b>4N1</b></li> <li>order and compare numbers beyond 1000 <b>4N2a</b></li> <li>find <b>10, 100</b> and 1000 more or less than a given number <b>4N2b</b></li> <li>recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones) <b>4N3a</b></li> <li>read Roman numerals to 100 (I to C) <b>4N3b</b></li> <li>know that over time, the numeral system changed to include the concept of zero and place value <b>4N3b</b></li> <li><b>compare number systems from history with ours</b></li> <li>identify, represent and estimate numbers using different representations <b>and concrete resources including measures and when comparing number systems 4N4a</b></li> <li>round any number to the nearest 10, 100 or 1000 <i>and connect to estimation when calculating or when using measuring instruments</i> <b>4N4b</b></li> <li>solve number and practical problems that involve all of the above and with increasingly large positive numbers <b>4N6</b></li> </ul>											
	<ul style="list-style-type: none"> <li>count backwards through zero to include negative numbers <b>and relate to their use in real life 4N5</b></li> <li><b>order and compare numbers including negative numbers</b></li> </ul>											
Multiplication and division	<ul style="list-style-type: none"> <li><b>derive, use and be increasingly fluent when recalling</b> multiplication and division facts for multiplication tables up to 12 x 12 (<b>exploring the 6 and 9x tables and relating to the 3 x table</b>) <b>4C6a</b></li> <li><b>represent the multiplication tables using concrete resources and pictorial representations</b></li> <li><b>identify patterns and relationships within times tables (including rules for divisibility)</b></li> <li><b>use known facts to derive new facts and inverse facts</b></li> </ul>											
	<ul style="list-style-type: none"> <li>add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate <b>using concrete resources to represent and understanding of place value 4C2</b></li> <li>estimate and use inverse operations to check answers to a calculation <b>4C3</b></li> <li><b>add and subtract mentally using concrete resources and pictorial representations to support understanding and to include:</b> <ul style="list-style-type: none"> <li>know when and how to use jottings to support conservation of number</li> <li>calculate what must be added to any three digit number to make the next multiple of 100</li> <li>add and subtract a pair of 2 digit numbers e.g. 38 + 86</li> <li>add and subtract 3 digit multiples of 10 e.g. 620 – 380</li> </ul> </li> <li>solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why (<b>within known number competency</b>) <b>4C4</b></li> </ul>											
Addition and subtraction	<ul style="list-style-type: none"> <li>draw 2-d shapes with increasing accuracy</li> <li>compare, identify and classify geometric shapes, including quadrilaterals (<i>rhombus, parallelogram, trapezium and rectangle</i>) and triangles (<i>isosceles, scalene and equilateral</i>), based on their properties and sizes <b>4G2a</b></li> <li>identify lines of symmetry in 2-D shapes presented in different orientations (<b>and in a variety of contexts</b>) <b>4G2b</b></li> <li>complete a simple symmetric figure with respect to a specific line of symmetry (<i>including where the line of symmetry does not dissect the original shape</i>) <b>4G2c</b></li> <li>identify acute and obtuse angles and compare and order angles up to two right angles by size (<i>not required to use a protractor</i>) <b>4G4</b></li> <li><i>use understanding of angle and lengths of side to decide whether 2d shapes are regular or irregular</i></li> <li><i>draw and construct symmetric patterns and shapes in different orientations and using different media</i></li> </ul>											
	<ul style="list-style-type: none"> <li>measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres <b>4M7a</b></li> </ul>											
Geometry	<ul style="list-style-type: none"> <li>interpret and present discrete data using appropriate graphical methods, including bar charts <b>4S1</b></li> <li>solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs <b>4S2</b></li> </ul>											
	<ul style="list-style-type: none"> <li>interpret and present discrete data using appropriate graphical methods, including bar charts <b>4S1</b></li> <li>solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs <b>4S2</b></li> </ul>											
Measurement	<ul style="list-style-type: none"> <li>interpret and present discrete data using appropriate graphical methods, including bar charts <b>4S1</b></li> <li>solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs <b>4S2</b></li> </ul>											
Statistics	<ul style="list-style-type: none"> <li>interpret and present discrete data using appropriate graphical methods, including bar charts <b>4S1</b></li> <li>solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs <b>4S2</b></li> </ul>											

Y4 medium-term immersion plan - learning sequence 2

Week	1	2	3	4	5	6	7	8	9	10	11	12
Fractions (including decimals)	<ul style="list-style-type: none"> <li>count up and down in hundredths and tenths including bridging through tenths and ones 4F1                             <ul style="list-style-type: none"> <li>continue to relate counting in tenths to counting in known multiples e.g. relate counting in multiples of 6 to counting in multiples of 0.6</li> </ul> </li> <li>recognise that hundredths arise when dividing an object by a hundred and dividing tenths by ten and relate to pounds and pence and other decimal units of measurement 4F1                             <ul style="list-style-type: none"> <li>link to place value</li> <li>relate decimal notation to division of a whole number by ten and later 100</li> </ul> </li> <li>compare and order unit fractions and fractions with the same denominators 3F3 (continued from Y3)</li> <li>recognise the place value of each digit to two decimal places</li> <li>add and subtract fractions with the same denominator i.e. where the denominator is 10 or 100 4F4</li> <li>recognise and write decimal equivalents to <math>\frac{1}{4}</math>; <math>\frac{1}{2}</math>; <math>\frac{3}{4}</math> and relate to money and decimal measures 4F6a</li> <li>recognise and write decimal equivalents of any number of tenths or hundredths 4F6b</li> <li>compare numbers with the same number of decimal places up to two decimal places 4F8                             <ul style="list-style-type: none"> <li>order decimals with up to 2 decimal places</li> <li>represent numbers with up to two decimal places in several ways including on a number line</li> </ul> </li> <li>round decimals with one decimal place to the nearest whole number and relate to rounding whole numbers, money and decimal measures 4F7</li> <li>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 4F9</li> <li>solve simple measure and money problems involving fractions and decimals to two decimal places 4F10b</li> </ul>											
	Multiplication and division	<ul style="list-style-type: none"> <li>derive, use and be increasingly fluent when recalling multiplication and division facts for multiplication tables (6 x, 11x and 12x) 4C6a                             <ul style="list-style-type: none"> <li>relate 12x, 6x, 3x and 4x tables identifying common multiples and making links to doubling</li> <li>relate 12x and 6x tables to chronology e.g. count in multiples of 60</li> </ul> </li> <li>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 4C6b                             <ul style="list-style-type: none"> <li>understand that multiplication can be done in any order when multiplying three numbers e.g. <math>2 \times 3 \times 4 = 3 \times 4 \times 2 = 4 \times 3 \times 2 = 24</math></li> </ul> </li> <li>recognise and use factor pairs and commutativity in mental calculations 4C6c                             <ul style="list-style-type: none"> <li>understand that multiplication is commutative but that division is not</li> </ul> </li> <li>solve problems involving multiplying and adding, including using integer scaling problems and harder correspondence problems such as n objects are connected to m objects 4C8</li> </ul>										
Addition and subtraction		<ul style="list-style-type: none"> <li>add and subtract numbers with up to 4 digits (including decimal tenths and hundredths) using the formal written methods of columnar addition and subtraction where appropriate 4C2                             <ul style="list-style-type: none"> <li>relate this to money and measures using decimal notation</li> <li>using concrete resources and pictorial representations to support understanding and communication</li> </ul> </li> <li>estimate and use inverse operations to check answers to a calculation 4C3</li> <li>add and subtract numbers mentally using concrete resources and pictorial representations to support understanding and to include;                             <ul style="list-style-type: none"> <li>know when and how to use jottings to support conservation of number</li> <li>calculate what must be added to any three digit number to make the next multiple of 100 and then any 4 digit number to make the next multiple of 1000 e.g. <math>4087 + \square\square\square = 5000</math></li> <li>add and subtract a pair of 2 digit numbers e.g. <math>38 + 86</math></li> <li>add and subtract 3 digit multiples of 10 e.g. <math>620 - 380</math></li> <li>calculate what must be added to a decimal with units and tenths and then a unit with tenths and hundredths to make the next whole number e.g. <math>7.2 + \square\square = 8</math> and relate to money, decimal measures and knowledge of place value</li> </ul> </li> <li>solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why 4C4</li> </ul>						<ul style="list-style-type: none"> <li>add and subtract numbers mentally using concrete resources and pictorial representations to support understanding and to include;                             <ul style="list-style-type: none"> <li>partitioning, counting on and back in minutes, and bridging through 60 when calculating time</li> </ul> </li> </ul>				
	Measurement	<ul style="list-style-type: none"> <li>convert between different units of measure [e.g. kilometre to metre; hour to minute] 4M5                             <ul style="list-style-type: none"> <li>relate to understanding of place value</li> <li>use decimal notation when recording money and understand how money looks on a calculator display</li> <li>record metric measures using decimal notation</li> <li>recognise decimal equivalents to <math>\frac{1}{4}</math>; <math>\frac{1}{2}</math>; <math>\frac{3}{4}</math> and relate to measure</li> </ul> </li> <li>estimate, compare and calculate different measures, including money in pounds and pence 4M1/2/9                             <ul style="list-style-type: none"> <li>explore and use these strategies in a range of contexts including those that involve practical uses of measure</li> <li>measure with increasing accuracy and record using decimal notation</li> </ul> </li> </ul>						<ul style="list-style-type: none"> <li>read, write and convert time between analogue and digital 12 and 24-hour clocks and recall with increasing fluency 4M4a/b</li> <li>solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days 4M4c</li> </ul>				
Statistics		<ul style="list-style-type: none"> <li>interpret and present discrete and continuous data using appropriate graphical methods - time graphs 4S1                             <ul style="list-style-type: none"> <li>use cross curricular links through subjects such as science, geography, history and PE when appropriate</li> <li>begin to understand the difference between discrete and continuous data</li> </ul> </li> <li>solve comparison, sum and difference problems using information presented in tables and other graphs (e.g. graphs and tables relating to timed events) 4S2</li> </ul>										

Y4 medium-term immersion plan - learning sequence 3

Week	1	2	3	4	5	6	7	8	9	10	11	12		
Geometry	<ul style="list-style-type: none"> <li>draw 2-D shapes with increasing accuracy</li> <li>begin to identify simple nets 3-D shapes e.g. unfold packets which are cubes or cuboids</li> <li>compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes <b>4G2a</b></li> <li>describe movements between positions as translations of a given unit to the left/right and up/down <b>4P2</b></li> <li>describe positions on a 2-D grid as coordinates in the first quadrant <b>4P3a</b></li> <li>plot specified points and draw sides to complete a given polygon <b>4P3b</b></li> <li>identify lines of symmetry in 2-D shapes presented in different orientations (and in a variety of contexts) <b>4G2b</b></li> <li>complete a simple symmetric figure with respect to a specific line of symmetry (including where the line of symmetry does not dissect the original shape) <b>4G2c</b></li> </ul>													
						<ul style="list-style-type: none"> <li>recall multiplication and division facts for multiplication tables up to <math>12 \times 12</math> <b>4C6a</b> <ul style="list-style-type: none"> <li>reason and generalise through investigation rules for divisibility for multiplication tables</li> </ul> </li> <li>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 <b>4C6b</b> <ul style="list-style-type: none"> <li>derive new facts from known facts with increasing fluency e.g. if <math>6 \times 3 = 18</math> then <math>60 \times 3 = 180</math> etc.</li> <li>understand when it is and isn't possible to use the inverse operation to solve missing number questions e.g. <math>240 \div \square = 3</math></li> <li>use known strategies e.g. partitioning before multiplying (distributive law) e.g. <math>36 \times 4 = (30 \times 4) + (6 \times 4) = 120 + 24 = 144</math> ensuring the correct use of brackets</li> </ul> </li> <li>recognise and use factor pairs and commutativity in mental calculations <b>4C6c</b> <ul style="list-style-type: none"> <li>use understanding that multiplication can be done in any order e.g. <math>20 \times 3 \times 4 = 3 \times 4 \times 20 = 4 \times 3 \times 20 = 240</math> (associative law)</li> </ul> </li> <li>multiply two-digit and three-digit numbers by a one-digit number using formal written layout using concrete resources and pictorial representation to support understanding and communication <b>4C7</b> <ol style="list-style-type: none"> <li>TO x O no exchange</li> <li>TO x O extra digit in the answer</li> <li>TO x O with exchange of ones into tens</li> <li>HTO x O with no exchange</li> <li>HTO x O with exchange of ones to tens</li> <li>HTO x O with exchange of tens into hundreds</li> <li>HTO x O with exchange of ones into tens and tens into hundreds</li> </ol> </li> <li>divide two-digit and three-digit numbers by a one-digit number where the answer is exact i.e. no remainders <ol style="list-style-type: none"> <li>TO ÷ O no exchange no remainder</li> <li>TO ÷ O with exchange no remainder</li> <li>HTO ÷ O no exchange and no remainder</li> <li>HTO ÷ O with exchange of hundreds into tens</li> <li>HTO ÷ O with exchange of tens into ones</li> <li>HTO ÷ O with exchange of hundreds into tens and tens into ones</li> <li>Where there are zeros in the quotient e.g. <math>816 \div 4 = 204</math></li> </ol> </li> <li>solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems e.g. making measurements 4 times longer or if one pack of sweets is £1.20 how much will sweets for 12 people cost? and harder correspondence problems such as n objects are connected to m objects e.g. numbers of choices of a meal on a menu or three cakes shared equally between 10 children <b>4C8</b></li> </ul>								
Multiplication and division														
Fractions (including decimals)						<ul style="list-style-type: none"> <li>order and compare fractions of quantities and shape in practical contexts</li> <li>recognise and show, using diagrams, families of common equivalent fractions <b>4F2</b> <ul style="list-style-type: none"> <li>use concrete resources and pictorial representation to explore relationships between fraction families</li> <li>use factors and multiples to recognise equivalent fractions and simplify where appropriate (e.g. <math>\frac{6}{9} = \frac{2}{3}</math> or <math>\frac{1}{4} = \frac{2}{8}</math>)</li> </ul> </li> <li>add and subtract fractions with the same denominator <b>4F4</b> including; <ul style="list-style-type: none"> <li>recall pairs of fractions with the same denominator that total 1</li> <li>add and subtract pairs of fractions with the same denominator bridging through 1</li> <li>in a variety of contexts</li> </ul> </li> <li>round decimals with one decimal place to the nearest whole number and relate to rounding whole numbers, money and decimal measures <b>4F7</b></li> <li>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 <b>4F9</b></li> <li>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 <b>4F10a</b> <ul style="list-style-type: none"> <li>link to arrays in multiplication, known factor pairs and multiplication and division facts</li> <li>make connections between fractions of a length, of a shape and as a representation of one whole or set of quantities</li> </ul> </li> <li>solve simple measure and money problems involving fractions and decimals to two decimal places <b>4F10b</b></li> </ul>								
Measurement						<ul style="list-style-type: none"> <li>find the area of rectilinear shapes by counting squares and link to arrays in multiplication <b>4M7b</b></li> <li>convert between different units of measure [e.g. kilometre to metre; hour to minute] <b>4M5</b></li> <li>solve simple problems involving converting between different units of measure [e.g. kilometre to metre]</li> <li>calculate different measures including money in pounds and pence <b>4F9</b></li> </ul>							<ul style="list-style-type: none"> <li>read, write and convert time between analogue and digital 12 and 24-hour clocks <b>4M4b</b></li> <li>solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days <b>4M4c</b></li> </ul>	