

Y3 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"> count from 0 in multiples of 4, 8, 50 and 100 and 2, 3, 5 and 10 from Y2 3N1b read and write numbers up to 1000 in numerals and in words 3N2a compare and order numbers up to 1000 3N2a find 10 or 100 more or less than a given number using concrete resources and pictorial representations 3N2b recognise the place value of each digit in a three-digit number (hundreds, tens, ones) 3N3 round numbers to the nearest 10 and 100 identify, represent and estimate numbers using different representations and concrete resources 3N4 solve problems involving all of the above 3N6 											
	Addition and subtraction	<ul style="list-style-type: none"> add and subtract numbers mentally, including: <ul style="list-style-type: none"> a three-digit number and ones any pair of two digit numbers including bridging through multiples of ten and through 100 a near double e.g. 19 + 16, 60 + 70 recall sums and differences of pairs of multiples of 10, 100 or 1000 recall doubles and halves of multiples of 10 to 100 e.g. 90 + 90 3C1 understand that addition is commutative and that subtraction is not e.g. 7-5 is not the same as 5-7 estimate the answer to a calculation and use inverse operations to check answers and rounding to nearest 10 or 100 3C3 										
Geometry		<ul style="list-style-type: none"> continue to identify and name a greater repertoire of regular and irregular shapes identify horizontal and vertical lines and pairs of perpendicular and parallel lines 3G2 draw 2-D shapes 3G3a <ul style="list-style-type: none"> measuring sides with increasing accuracy to include symmetrical and non-symmetrical polyhedra make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them 3G3b recognise that angles are a property of shape or a description of a turn 3G4a 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 and classify acute and obtuse angles 3G4b 										
	Measurement	<ul style="list-style-type: none"> measure, compare, add and subtract: lengths (m/cm/mm) (no conversion between units and expressed as mixed units e.g. 1m 30cm) 3M1a/2a/9b measure the perimeter of simple 2-D shapes 3M7 measure, compare, add and subtract: <ul style="list-style-type: none"> lengths (m/cm/mm); 3M1a/2a/9b mass (kg/g); 3M1b/2b/9c volume/capacity (l/ml) 3M1c/2c/9d use known multiplication facts for scaling of measures by integers (e.g. a given quantity or measure is twice as long or five times as high) 										
Multiplication and division		<ul style="list-style-type: none"> derive and begin to recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables 3C6 <ul style="list-style-type: none"> recognise and derive factor pairs of multiples in known tables connect 2, 4 and 8 multiplication tables with doubling derive rules for divisibility for 2, 5, 3, 4, 8 and 10 x tables understand that multiplication is commutative and division is not derive new facts from given facts (e.g. $3 \times 2 = 6$, $6 \div 3 = 2$ and $2 = 6 \div 3$) 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 (using familiar multiplication and division facts) 3C8 										
	Fractions (including decimals)	<p>Link to knowledge of multiplication and division facts</p> <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 3F1b recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators 3F1c recognise and show, using diagrams, equivalent fractions with small denominators 3F2 compare and order unit fractions, and fractions with the same denominators 3F3 										

Y3 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"> count up and down in tenths <i>including bridging through 1s</i>: <ul style="list-style-type: none"> relate counting in tenths to counting in known multiples e.g. relate counting in multiples of 4 to counting in multiples of 0.4 3F1a recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10 3F1a <ul style="list-style-type: none"> represent numbers with decimal tenths using concrete resources and pictorial representations partition numbers with one decimal place order and compare numbers with one decimal place round numbers with one decimal place to the nearest whole number relate decimal tenths to fractional tenths e.g. $1/10 = 0.1$ relate decimal tenths to multiples of ten pence when working with money add and subtract fractions with the same denominator within one whole (for example, $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$) 3F4 <ul style="list-style-type: none"> add and subtract decimal tenths solve problems that involve applying knowledge of fractions work so far 3F10 											
Addition and subtraction							<ul style="list-style-type: none"> add and subtract numbers mentally, including: <ul style="list-style-type: none"> a three-digit number and ones including partitioning the ones number when bridging through multiples of 10 and 100 a three-digit number and tens and relate to counting on and back in tens from any number bridging through multiples of 100 a three-digit number and hundreds calculate what must be added to any 3 digit number to make the next multiple of 100 e.g. $521 + \square\square = 600$ using knowledge of complements to 100 from Y2 3C1 add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction using concrete resources and understanding of place value <ol style="list-style-type: none"> no exchange extra (+) or fewer (-) digits in the answer exchanging units to tens exchanging tens to hundreds exchanging units to tens and tens to hundreds 3C2 estimate the answer to a calculation and use rounding to 10 and 100 and inverse operations to check answers 3C3 solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction 3C4 					
Measurement	<ul style="list-style-type: none"> add and subtract amounts of money to give change, using both £ and p in practical contexts (<i>they record £ and p separately and not as decimals which is introduced formally in Y4</i>) 3M9a develop fluency when recognising the value of coins and notes 						<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 3M4a/b/c estimate and read time with increasing accuracy to the nearest minute 3M4d record and compare time in terms of seconds, minutes and hours 3M4d use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight 3M4d know the number of seconds in a minute and the number of days in each month, year and leap year 3M4e compare durations of events [e.g. to calculate the time taken by particular events or tasks] 3M4f 					
Multiplication and division							<ul style="list-style-type: none"> recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables and relate counting in multiples of e.g. 4 to counting in multiples of 40, 400 and 0.4 3C6 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 <i>supported by concrete resources and pictorial representations</i> 3C7 <ul style="list-style-type: none"> use commutativity and associativity (for example, $2 \times 3 \times 5 = 2 \times 5 \times 3 = 10 \times 3 = 30$) and multiplication and division facts (for example, using $3 \times 2 = 6$, $6 \div 3 = 2$ and $2 = 6 \div 3$) to derive related facts ($30 \times 2 = 60$, $60 \div 3 = 20$ and $20 = 60 \div 3$) use partitioning to multiply a two-digit number by a one digit number e.g. $23 \times 4 = 20 \times 4 + 3 \times 4 = 92$ solve problems, including missing number problems, involving multiplication and division <i>with known facts</i>, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects e.g. 3 hats and 4 coats, how many different outfits?; 12 sweets shared equally between 4 children; 4 cakes shared equally between 8 children 3C8 					
Statistics	<p>Link to comparing chronology and through cross curricular activities and a variety of contexts</p> <ul style="list-style-type: none"> interpret and present data using bar charts, pictograms and tables using simple scales (for example, 2, 5, 10 units per cm) 3S1 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 3S2 											

Y3 medium-term immersion plan - learning sequence 3

Week	1	2	3	4	5	6	7	8	9	10	11	12	
Fractions (including decimals)	<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 3F1a recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators 3F1b recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators 3F1c recognise and show, using diagrams and concrete resources, equivalent fractions with small denominators 3F2 compare and order unit fractions, and fractions with the same denominators <i>on a number line including beyond 0-1 and relate this to measure</i> 3F3 add and subtract fractions with the same denominator within one whole (for example, $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$) 3F4 solve problems that involve all of the above 3F10 												
Measurement	<ul style="list-style-type: none"> measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) 3M1abc/3M2abc/3M9bcd <ul style="list-style-type: none"> reading scales that increase in simple rates such as 2s, 5s, 10s, 50s and 100s derive and begin to recall simple equivalence of units that relate to work on fractions $1m = 100cm$, $\frac{1}{2}m = 50cm$, $\frac{1}{10}m = 10cm$ compare and order measures using mixed units e.g. 1kg and 200g measure the perimeter of simple 2-D shapes 3M7 <ul style="list-style-type: none"> with increasing accuracy and draw rectilinear shapes with given perimeters in centimetres 					<ul style="list-style-type: none"> add and subtract amounts of money to give change, using both £ and p in practical contexts (<i>they record £ and p separately and not as decimals which is introduced formally in Y4</i>) 3M9a develop fluency when recognising the value of coins and notes 							
Geometry	<ul style="list-style-type: none"> continue to identify and name a greater repertoire of regular and irregular shapes draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them 3G3ab <ul style="list-style-type: none"> draw sides of 2D shapes and construct 3D shapes using measuring tools with increasing accuracy in centimetres in a variety of contexts identify horizontal and vertical lines and pairs of perpendicular and parallel lines 3G2 <ul style="list-style-type: none"> describe shapes using accurate language recognise that angles are a property of shape or a description of a turn 3G4a 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 and classify acute and obtuse angles 3G4b read and record the vocabulary of position, direction and movement using the four points of a compass to describe movement around a grid 												
Addition and subtraction	<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 3C1 add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction 3C2 <ol style="list-style-type: none"> no exchange extra (+) or fewer (-) digits in the answer exchanging units to tens exchanging tens to hundreds exchanging units to tens and tens to hundreds estimate the answer to a calculation and use inverse operations to check answers 3C3 solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction 3C4 												
Multiplication and division	<ul style="list-style-type: none"> recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables 3C6 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 and progressing to formal written methods 3C7 <ul style="list-style-type: none"> using concrete resources to introduce each stage and relating to mental methods taught <ol style="list-style-type: none"> TO x O no exchange TO x O extra digit in the answer TO x O with exchange of ones into tens TO ÷ O no exchange no remainder TO ÷ O with exchange no remainder 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 3C8 												