

Year 2 - Maths Long Term Plan

Autumn

Place Value (4 weeks)	Addition and Subtraction (5 weeks)	Shape (3 weeks)
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Spring

Multiplication and Division (4 weeks)	Money (3 weeks)	Time (3 weeks)	Length (2 weeks)
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Summer

Fractions (4 weeks)	Position and Direction (2 weeks)	Mass, Capacity and Temperature (3 weeks)	Statistics (2 weeks)	
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Year 2: Place Value
(4 Weeks)

Prior Knowledge: • Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number. • Count, read and write numbers to 100 in numerals, and from 1 to 20 in words. • Count in multiples of twos, fives and tens • Given a number, identify one more and one less • Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least	Vocabulary: Number Count Order Compare Forwards Backwards Numerals Digit Equal to More than Less than (Fewer) Represent Multiples Partitioning Recombine Ones Tens Place value
Links to National Curriculum: • Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward • Recognise the place value of each digit in a two-digit number (tens, ones) • Identify, represent and estimate numbers using different representations, including the number line • Compare and order numbers from 0 up to 100; use <, > and = signs • Read and write numbers to at least 100 in numerals and in words • Use place value and number facts to solve problems	Assessment Criteria (Ready to Progress): • Recognise the place value of each digit in two-digit numbers and compose and decompose two-digit numbers using standard and nonstandard partitioning. • Reason about the location of any two digit number in the linear number system, including identifying the previous and next multiple of 10.
Small Steps: 1) Numbers to 20 2) Count objects to 100 by making 10s 3) Recognise tens and ones 4) Use a place value chart 5) Partition numbers to 100 6) Write numbers to 100 in words 7) Flexibly partition numbers to 100 8) Write numbers to 100 in expanded form	9) 10s on the number line to 100 10) 10s and 1s on the number line to 100 11) Previous and next multiple of 10 12) Step 11 Estimate numbers on a number line 13) Compare numbers 14) Order objects and numbers 15) Count in 2s, 16) Count in 5s 17) Count in 3s

Prior Knowledge: • read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs • represent and use number bonds and related subtraction facts within 20 • add and subtract one-digit and two-digit numbers to 20, including zero • solve one-step problems that involve addition and subtraction and missing number problems such as $7 = ? - 9$	Vocabulary: Add Plus Altogether Total Take away/minus Number bonds Part Whole Digit Addition/Add More Altogether Sum Total Subtraction Take away Minus Difference Equals Facts Problems Missing number problems Inverse	
Links to National Curriculum: • Solve problems with addition and subtraction: - o Using concrete objects and pictorial representations, including those involving numbers, quantities and measures - o Applying their increasing knowledge of mental and written methods • recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 • add and subtract numbers using concrete objects, pictorial representations, and mentally, including: - o a two-digit number and ones - o a two-digit number and tens - o two two-digit numbers - o adding three one-digit numbers • show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot • recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.	Assessment Criteria (Ready to Progress): • Secure fluency in addition and subtraction facts within 10, through continued practice. • Add and subtract across 10. • Recognise the subtraction structure of 'difference' and answer questions of the form, "How many more...?". • Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract only ones or only tens to/from a two-digit number. • Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract any 2 two-digit numbers.	
Small Steps: 1) Bonds to 10 2) Fact families - addition and subtraction bonds within 20 3) Related facts 4) Bonds to 100 (tens) 5) Add and subtract 1s (MENTAL) 6) Add by making 10 (MENTAL) 7) Add three 1-digit numbers (MENTAL)	8) Add to the next 10 (MENTAL) 9) Add across a 10 (MENTAL) 10) Subtract across 10 (MENTAL) 11) Subtract from a 10 Step (MENTAL) 12) Subtract a 1-digit number from a 2-digit number (across a 10) (MENTAL) 13) 10 more, 10 less (MENTAL) 14) Add and subtract 10s (MENTAL) 15) Add two 2-digit numbers (not across a 10) (FORMAL)	16) Add two 2-digit numbers (across a 10) (FORMAL) 17) Subtract two 2-digit numbers (not across a 10) (FORMAL) 18) Subtract two 2-digit numbers (across a 10) (FORMAL) 19) Mixed addition and subtraction (FORMAL) 20) Compare number sentences 21) Missing number problems
Year 2: Shape (3 Weeks)		

Prior Knowledge: • recognise and name common 2-D and 3-D shapes, including: - o 2-D shapes [for example, rectangles (including squares), circles and triangles] - o 3-D shapes [for example, cuboids (including cubes), pyramids and spheres].	Vocabulary: 2d shapes Rectangle Square Circle Triangle 3d shapes Cuboids Cubes Cone Spheres Curved Straight Flat Group Sort Sides Corners Pyramids Faces Pentagon Hexagon Cylinder Octagon Line of symmetry Symmetrical Mirror line Reflection Properties Edges Vertices Vertex
Links to National Curriculum: • identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line • identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces • identify 2-D shapes on the surface of 3-D shapes [for example, a circle on a cylinder and a triangle on a pyramid] • compare and sort common 2-D and 3-D shapes and everyday objects.	Assessment Criteria (Ready to Progress): • Use precise language to describe the properties of 2D and 3D shapes and compare shapes by reasoning about similarities and differences in properties.
Small Steps: 1) Recognise 2-D shapes 2) Count sides on 2-D shapes 3) Count vertices on 2-D shapes 4) Draw 2-D shapes 5) Lines of symmetry on shapes 6) Use lines of symmetry to complete shapes 7) Sort 2-D shapes 8) Recognise 3-D shapes 9) Count faces on 3-D shapes 10) Count edges on 3-D shapes 11) Count vertices on 3-D shapes 12) Sort 3-D shapes 13) Compare shapes based on their properties	

Year 2: Multiplication and Division (4 Weeks)	
Prior Knowledge:	Vocabulary:

• solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.	Double Half Twice as many Equal Unequal Share Group Odd Even Multiplication Division Arrays Row Column Count in... Lots of Groups of.. Times Multiple Repeated addition Divide Multiplication tables Commutative
Links to National Curriculum: • recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers • calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication ($\times$), division ($\div$) and equals (=) signs • show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot • solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.	Assessment Criteria (Ready to Progress): • Recognise repeated addition contexts, representing them with multiplication equations and calculating the product, within the 2, 5 and 10 multiplication tables. • Relate grouping problems where the number of groups is unknown to multiplication equations with a missing factor, and to division equations (quotitive division).
Small Steps: 1) Recognise equal groups 2) Make equal groups 3) Add equal groups 4) Introduce the multiplication symbol 5) Multiplication sentences 6) Use arrays 7) Make equal groups - grouping 8) The 2 times-table 9) Divide by 2 10) Doubling and halving 11) Odd and even numbers 12) The 10 times-table 13) Divide by 10 14) The 5 times-table 15) Divide by 5 16) The 5 and 10 times-tables	

Year 2: Money (3 Weeks)	
Prior Knowledge: • Recognise and know the value of different denominations of coins and notes	Vocabulary: Money Coins Notes Pounds £ Pence p Value Change

Links to National Curriculum: • Recognise and use symbols for pounds (£) and pence (p) • Combine amounts to make a particular value • Find different combinations of coins that equal the same amounts of money • Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change	Assessment Criteria (School set): • 100p = £1 • Give change from 20p, 50p and £1
Small Steps: 1) Recognise coins (pence) 2) Count money - pence 3) Recognise coins and notes (pounds) 4) Count money - pounds (notes and coins) 5) Count money - pounds and pence 6) Choose notes and coins 7) Make the same amount 8) Compare amounts of money 9) Calculate with money 10) Make a pound 11) Find change (FORMAL SUBTRACTION) 12) Two-step problems	

Year 2: Time (3 Weeks)	
Prior Knowledge: • compare, describe and solve practical problems for time [for example, quicker, slower, earlier, later] • measure and begin to record time (hours, minutes, seconds)	Vocabulary: Time Day Hour Minutes O'clock Half past Quarter past Quarter to past to

• sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening] • recognise and use language relating to dates, including days of the week, weeks, months and years • tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.	
Links to National Curriculum: • Compare and sequence intervals of time • Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times • Know the number of minutes in an hour and the number of hours in a day	Assessment Criteria (School Set): • Tell/write the times: quarter to and quarter past. • 60 minutes = 1 hour • 24 hours = 1 day
Small Steps: 1) O'clock and half past 2) Quarter past and quarter to 3) Tell time past the hour 4) Tell time to the hour 5) Tell the time to 5 minutes 6) 6 Minutes in an hour 7) Hours in a day	

Year 2: Length and Height (2 Weeks)	
Prior Knowledge: • compare, describe and solve practical problems for lengths and heights [for example, long/short, longer/shorter, tall/short, double/half] • measure and begin to record lengths and heights	Vocabulary: Measure Wider Narrow Compare Longer Shorter Length Height Centimetre cm Metre m
Links to National Curriculum:	Assessment Criteria (School Set): • 100cm = 1m

• choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm) using rulers • compare and order lengths using >, < and =	
Small Steps: 1) How to use a ruler 2) Measure in centimetres 3) Measure in metres 4) Compare lengths and heights 5) Order lengths and heights 6) Adding and subtracting lengths and heights 7) Four operations with lengths and heights	

Year 2: Fractions (4 Weeks)	
Prior Knowledge: • recognise, find and name a half as one of two equal parts of an object, shape or quantity • ♣ recognise, find and name a quarter as one of four equal parts of an object, shape or quantity	Vocabulary: Whole Half Quarter Equal parts Three quarters Third
Links to National Curriculum:	Assessment Criteria (School Set): • Shade $\frac{1}{3}$, $\frac{1}{2}$, $\frac{1}{4}$ And $\frac{3}{4}$ of a shape.

- Recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{2}$, $\frac{1}{4}$ And $\frac{3}{4}$ of a length, shape, set of objects or quantity - Write simple fractions for example, $\frac{1}{2}$ of 6 - Recognise the equivalence of $\frac{2}{4}$ And $\frac{1}{2}$	
Small Steps: 1) Introduction to parts and whole 2) Equal and unequal parts 3) Recognise a half 4) Recognise a quarter 5) Recognise three-quarters 6) Recognise a third 7) Recognise and shade halves, thirds and quarters 8) Find a half 9) Find a third 10) Find a quarter 11) Find three-quarters 12) Find fractions of a quantity 13) Find the whole 14) Recognise the equivalence of a half and two quarters 15) Count in fractions up to a whole	

Year 2: Position and Direction (2 Weeks)	
Prior Knowledge: Describe position, direction and movement, including whole, half, quarter and three-quarter turns	Vocabulary: Pattern Repeating pattern Front Behind Left Right Above Below In Between Position Direction Movement Whole turn Quarter turn Half turn Three-quarter turn Clockwise/anticlockwise
Links to National Curriculum: order and arrange combinations of mathematical objects in patterns and sequences	Assessment Criteria (School set): - Quarter turn, half turn, 3-quarter turn. - Clockwise and anti-clockwise

• use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anticlockwise).	
Small Steps: 1) Language of position 2) Describe movement 3) Describe turns 4) Describe movement and turns 5) Make and continue patterns 6) Shape patterns with turns	

Year 2: Mass, Capacity and Temperature
(3 Weeks)

Prior Knowledge: • compare, describe and solve practical problems for: - o mass/weight [for example, heavy/light, heavier than, lighter than] - o capacity and volume [for example, full/empty, more than, less than, half, half full, quarter] • measure and begin to record the following: - o mass/weight - o capacity and volume	Vocabulary: Height Long Short Weight Capacity Heavy/light Heavier than Lighter than Full/empty More than Less than Half/half full Mass Volume Holds Scales Container Weigh Balances Kilogram kg Gram g Quarter Three quarters Litres L Millimetres ml Temperature Degrees
Links to National Curriculum:	Assessment Criteria (School Set):

• choose and use appropriate standard units to estimate and measure mass (kg/g), temperature (°C) and capacity (litres/ml) to the nearest appropriate unit, using, scales, thermometers and measuring vessels • compare and order mass and volume/capacity and record the results using >, < and =	• Mass is measured in g and kg • Volume is measured in ml and l
Small Steps: 1) Compare mass 2) Measure in grams 3) Measure in kilograms 4) Adding and subtracting mass 5) Four operations with mass 6) Compare volume and capacity 7) Measure in millilitres 8) Measure in litres 9) Adding and subtracting volume and capacity 10) Four operations with volume and capacity 11) Temperature 12) Problems involving temperature	

Year 2: Statistics
(2 Weeks)

Prior Knowledge: • Experience of grouping and sorting. •	Vocabulary: Pictograms Tally chart Tally Vote Represent Block diagram Category Sorting Totalling Comparing
Links to National Curriculum: • Interpret and construct simple pictograms, tally charts, block diagrams and simple tables • Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity • Ask and answer questions about totalling and comparing categorical data.	Assessment Criteria (School Set): • Read scales of 1 to interpret simple data.
Small Steps:	

- 1) Make tally charts
- 2) Tables
- 3) Block diagrams
- 4) Draw pictograms (1-1)
- 5) Interpret pictograms (1-1)
- 6) Draw pictograms (2, 5 and 10)
- 7) Interpret pictograms (2, 5 and 10)