

Maths Curriculum Map – Year 2

Year 2 Autumn	
Number & Place Value	Y1: Count to and across 100, forwards and backwards, from any given number - Count in 10s to and from 100 - Estimate numbers using concrete resources and relative position on a number line marked in multiples of 10, with particular emphasis on 'nearly numbers' such as those ending in '8' or '9'. For example 18 is close to (or nearly) 20. - Read and write numbers to at least 100 in numerals and words - Use the number line with structured resources to develop understanding of how numbers relate to one another and to support ordering. For example: Explore place value patterns such as 7,17,27,.... And 57,47,37,..... - Order numbers up to 100, starting from any number. Include consecutive numbers, odds and evens and step counting in 2s,5s and 10s, using $<$, $>$ and $=$ signs.
Addition and Subtraction	- Compare and order numbers up to 100, using $<$, $>$ and $=$ signs - Given a number, identify one or ten more and one or ten less bridging through tens and through one hundred - Use the language of two more than 19 is 21; two less than 31 is 29 - Identify and represent numbers using a range of pictorial representations including the number line . - Count in steps of 10 from any numbers, forward and backward - Use a context to solve problems involving ten more and ten less - Y1: Revise and develop fluency in the use of partitions of all numbers up to 20, recalling and deriving associated subtraction facts to solve problems - Y1: Revise and develop fluency in using partitioning and part-whole diagrams to read, write and interpret mathematical statements to 20 when solving problems - Y1: Revise and develop fluency with using known facts or derived number facts - Y1: Revise and develop fluency in solving problems that involve addition and subtraction to 20, using concrete objects and pictorial representations. - Deepen understanding of the relationship between the concrete and ordinal for numbers up to 100. For example, 43 is four tens and three ones (using concrete objects) and also 43 is three more than 40 (position on a number line) - Partition numbers up to 10 into two parts in different ways using concrete objects such as 2-coloured counters or 2-coloured multi-link bars. Record pictorially - Use a context to problem solve with number bonds to 20
Measurement	Find different combinations of coins that equal the same amounts of money. - Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value. - Put coins on a number-line to step-count in 2ps, 5ps and 10ps - Solve problems in a practical context involving addition and subtraction of money of the same unit - Compare and order lengths using appropriate standard units (cms). Record the results using $>$, $<$ and $=$

	• Y1: tell the time to the hour and half past the hour and draw the hands on the clock face to show these times
Addition and subtraction	Solve problems with addition and subtraction, applying their increasing knowledge of mental recall of number bonds to 20. • Add and subtract numbers using concrete objects, pictorial representations and mentally, including a 2-digit number and ones ; a 2-digit number and tens • Add three one-digit numbers
Multiplication and division	• Count reliably in 2s, 5s and 10s from zero. Introduce counting in 3s from zero. (multiples) • Link counting in 2s, 5s ,10s to grouping objects and to the pattern of numbers on a number-line. • Solve problems involving groups of 2, 5 and 10 objects using pictorial recording. • Rehearse together the language of 'How many groups of 2 (5, 10) are there?' ~ 'There are 3 groups of 2 (5,10)' • Construct arrays with concrete objects. Notice that $2 \times 5 = 5 \times 2$ etc. (Commutativity). Record pictorially. • Develop the concept of sharing and grouping into different sized groups (not just 2s) • Recognise, name and write a half as one of two equal parts of a quantity and write a half as a word and as a number
Fractions with Geometry	• Identify and describe the properties of 2-D shapes, including the number of sides and symmetry in a vertical line • Identify 2-D shapes on the surface of 3-D shapes, for example a circle on a cylinder and a triangle on a pyramid. • Recognise, find, name and write fractions as equal parts of a shape (link to symmetry and folding). Focus on $\frac{1}{2}$, $\frac{1}{4}$, $\frac{2}{4} = \frac{1}{2}$ • Measurement: tell and write the time to five minutes, including quarter past/ to the hour and draw the hands on the clock face to show these times
Number and PV with Addition and Subtraction	Count in steps of 10 from any number forward or backwards, modelling on a number-line • Read and write numbers to at least 100 in numerals and in words • Compare and order numbers from zero up to 100 using and = • Count back from any given number • Given a number, identify one (ten) more and one (ten) less within 100. • Use structured number-lines to record addition and subtraction number sentences; 2-digit number to add or subtract some ones. • Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations including on the number-line
Statistic	Construct simple pictograms and tally charts. • Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity.
Year 2 Spring	
Number & PV with Addition and Subtraction	Add and subtract numbers using concrete objects, pictorial representations (number-lines) and mentally, including a two-digit number and ones and a two-digit number and tens. • Add three one-digit numbers

	• Use partitions of 5,6,7,8,9 to bridge through 10 when adding and subtracting. Record on number-lines and as a number sentence. • Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot.
Measurement • Time • Mass	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 how many minutes there are in an hour, half an hour and quarter of an hour • Know the number of hours in a day • Choose and use appropriate standard units to estimate and measure mass (kg/g) to the nearest appropriate unit using scales
Fractions / Geometry	Identify and describe the properties of 2-D shapes, including the number of sides and symmetry in a vertical line • Identify 2-D shapes on the surface of 3-D shapes, for example a circle on a cylinder and a triangle on a pyramid. • Identify and describe the properties of 3-D shapes, including the number of faces, edges and vertices. • Order and arrange combinations of mathematical objects in patterns • Recognise, find, name and write fractions as equal parts of a shape (link to symmetry and folding). Focus on $\frac{1}{2}$, $\frac{1}{4}$, $\frac{2}{4} = \frac{1}{2}$. Introduce $\frac{1}{3}$ and $\frac{2}{3}$ of a shape
Multiplication and division	• Count reliably in 2s, 5s and 10s from zero, forward or backward. Show on a number-line. • Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odds and evens. • Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods. • Use the multiplication (x) and equals (=) signs to show solutions alongside other representations e.g. arrays and number-lines. • Rehearse together and use the language of 'How many groups of 2 (5,10) are there?' ~ 'There are 3 groups of 2 (5,10)' • Share objects equally by counting how many in each group and record pictorially (arrays). Recognise the link with multiplication facts represented as arrays. Develop the concept of sharing and grouping into different sized groups (not just 2s, 5s and 10s)
Number and PV with Subtraction and Addition	Count in 3s from zero to 30, modelling on a number-line • Read and write numbers in numerals and in words to at least 100. • Derive and use related facts up to 100. E.g. $3 + 7$ and $30 + 70$ • Order numbers up to 100 starting from any number crossing the tens boundaries. • Count back from any given number up to 100. • Given a number, identify one more and one less • Add multiples of 10 to any number using concrete resources and a number-line • Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems Revise and use partitions of all numbers up to 20, recalling and deriving associated subtraction facts to solve problems. Represent using part-whole diagrams such as a bar model. • Use partitioning and part-whole diagrams to read, write and interpret mathematical statements to 20 when solving problems.

	• Develop children's fluency with using known or derived number facts through the use of multi-representations (concrete and pictorial) • Solve one-step problems that involve addition and subtraction to 20, using concrete objects and pictorial representations.
Subtraction and Addition with Statistics	• Interpret and construct simple tally chart, block diagrams and tables. • Ask and answer questions about totalling and comparing categorical data
Addition and Subtraction with Measurement • Money	Solve simple problems in practical context involving addition and subtraction of money of the same unit, including giving change. • Count in 2ps (5ps, 10ps, 20ps and 50ps) to £1, modelling on a numberline • Know 100p = £1, 2x 50ps = £1, 10 x 10ps = £1, 5 x 20p = £1. Relate to tables facts in the context of money. • Find different combinations of coins that equal the same amounts of money. • Add and subtract 10p(s) to and from an amount of money using 10p and 1p coins and a number-line
Fractions	Recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ of a quantity • Write simple fractions e.g. $\frac{1}{2}$ of 6 = 3, and recognise the equivalence of $\frac{2}{4}$
Measurement and geometry	Compare and sort common 2-D and 3-D shapes and everyday objects • 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). • Choose and use appropriate standard units to estimate and measure length / height in any direction (m / cm); mass (kg/g); temperature (°C); capacity (l/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels. • Compare and order lengths, mass, volume/capacity and record the results using more (>) than, less than (<) and equals (=)
Addition and subtraction	Derive and use related facts up to 100 • Add and subtract numbers using concrete objects, pictorial representations and mentally including two 2-digit numbers • Solve problems with addition and subtraction using concrete objects and pictorial representations, including those involving numbers, quantities and measures.
Year 2 Summer	
Multiplication and Division	• Count reliably in 2s, 5s and 10s from zero, forward or backward. Show on a number-line. • Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odds and evens. • Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods. • Use the multiplication (x) and equals (=) signs to show solutions alongside other representations e.g. arrays and number-lines. • Rehearse together and use the language of 'How many groups of 2 (5,10) are there?' ~ 'There are 3 groups of 2 (5,10)' • Share objects equally by counting how many in each group and record pictorially (arrays). Recognise the link with multiplication facts represented as arrays.

Number and Place Value Addition and subtraction	• Recognise the place value of each digit in a 2-digit number (10s, ones) • Identify, represent and estimate numbers using different representations including the number line and in the context of number, quantity and measure. • Compare and order numbers from zero up to 100, using $<$, $>$ and $=$ signs • Read and write numbers to at least 100 in numerals and in words • Use place value and number facts • Solve problems with addition and subtraction 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: a 2-digit number and ones; a 2-digit number and tens; two 2-digit numbers; adding three 1-digit numbers. • Show that addition of two numbers can be done in any order 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 missing number problems
Fractions Multiplication and division	• Recognise, find, name, and write fractions of a length, shape, set of objects or quantity • Write simple fractions e.g. $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ • Solve problems involving multiplication and division using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts • 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.
Measure	• Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change. • Recognise and uses 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 • Choose and use appropriate standard units to estimate and measure length / height in any direction (m / cm); mass (kg/g); temperature ($^{\circ}\text{C}$); capacity (l/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels. • Compare and order lengths, mass, volume/capacity and record the results using more ($>$) than, less than ($<$) and equals ($=$) • Compare and sequence intervals of time • Tell the time to 5 minutes, including quarter past and 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
Geometry	Recognise and name common 2-D shapes, including squares, circles, rectangles and triangles • Recognise and name 3-D shapes, including cuboids, pyramids and spheres.

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| | <ul style="list-style-type: none">• Describe position, directions and movements including $\frac{1}{2}$, $\frac{1}{4}$, $\frac{3}{4}$ turns |
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