

Year One
Mathematics Progression
Mapping

	Number and Place Value (NPV)	Addition and Subtraction (AS)
Y1 Autumn	Recite the numbers in order counting to 100, forwards and backwards, beginning with 0 or 1, or from any given number. Example: 1, 2, 3, 4, 5, ... 100, 99, 98, 97, 96, ... 47, 48, 49, 50, 51, ... Estimate a set of objects and count to check how many (up to 50).	Subitise numbers to 6. Given a number, identify one more and one less, any number up to 20. Example: 1 more than 10 is 11, 1 less than 10 is 9. 1 more than 13 is 14, 1 less than 13 is 12. 1 more than 19 is 20, 1 less than 19 is 18.
	Identify and represent numbers using objects and pictorial representations including the number line, images, sounds and actions up to 20, matching the number to the object or image (one-to-one correspondence).	Begin to know number bonds to 5, 6 and 7. Example: 5 = 5 + 0, 4 + 1, 3 + 2 6 = 6 + 0, 5 + 1, 4 + 2, 3 + 3 7 = 7 + 0, 6 + 1, 5 + 2, 3 + 4
	Read and write numbers from 1 to 20 in numerals and words. Example: 1 one, 2 two, 3 three, 4 four	Know bonds to 10 and use known addition facts for 10 to solve subtractions. Example: 7 + 3 = 10, 10 - 3 = 7 8 + 2 = 10, 10 - 8 = 2 9 + 1 = 10, 10 - 1 = 9
	Understand and use 0 to represent the empty set.	Find the missing number in number sentences. Example: 4 + □ = 5 6 + □ = 10 4 + □ = 10
	Compare and order numbers up to 20 and say a number between two numbers up to 20; begin to understand ordinal numbers. Example: 14, 15, 16 5, 6, 7 11, 12, 13	Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs. Example: 2 + 3 = 5 9 + 1 = 10 6 - 2 = 4
	Recognise and understand that teen numbers are 10 and some 1s and begin to use this knowledge to compare numbers. Example: 13 = 10 + 3, one 10 and three 1s. 16 = 10 + 6, one 10 and six 1s. 17 = 10 + 7, one 10 and seven 1s.	Use number facts and concrete objects to solve simple word problems. Example: 10 hedgehogs are going to sleep for the winter. 8 are asleep. How many are still awake? There are 4 boys and 3 girls. How many children altogether?

Use number facts and concrete objects to solve simple word problems.

Example:
10 hedgehogs are going to sleep for the winter. 8 are asleep. How many are still awake?

There are 4 boys and 3 girls. How many children altogether?

Understand that you do not need to count the first number when adding.

Example:
Work out $8 + 3$ by counting on from 8 without having to count the 8 itself.

Add 1-digit and 2-digit numbers to 20, including adding 1, 2 and 3 by counting on.

Example:
 $9 + 1$
 $13 + 2$
 $8 + 3$

Subtract 1-digit and 2-digit numbers to 20, including subtracting 1, 2 and 3 by counting back.

Example:
 $10 - 1$
 $15 - 2$
 $17 - 3$

Multiplication and Division (MD)	Fractions, Decimals, Ratio and Percentages (FDRP)	Measures (MEA)	Geometry (GEO)	Statistics (STA)
<p>Find doubles to double 5 using fingers to help.</p> <p>Example: Double 2 is 4. Double 3 is 6. Double 5 is 10.</p>		<p>Compare, measure and begin to record lengths and heights using uniform non-standard units.</p> <p>Example: The toy snake is 10 cubes long. The pencil is 6 cubes long. The snake is longer than the pencil. The bear is 8 blocks high.</p>	<p>Recognise, name and sort common 2D shapes. For example, rectangles (including squares), circles and triangles.</p> <p>Example: It has three sides, it is a triangle. It is symmetrical, it is a square.</p>	
		<p>Measure and begin to record lengths and heights, beginning to use standard units, e.g. cm, m.</p> <p>Example: The bear is 23 cm high. My hand is 11 cm long. The school hall is 16 metres long.</p>	<p>Describe position, direction and movement, including whole, half, quarter and three-quarter turns.</p> <p>Example: Make a half turn to the right. Raise your left hand up in the air. The teddy is under the table.</p>	
		<p>Recognise and know the value of different denominations of coins.</p> <p>Example: 1p, 2p, 5p, 10p, 20p, 50p and £1</p>		
		<p>Find different combinations of small amounts up to 20p.</p>		

<p>Locate 2-digit numbers on a bead string.</p>	<p>Represent and use number bonds and related subtraction facts within 20.</p> <p>Example: $19 + 1 = 20$, $20 - 1 = 19$ $12 + 4 = 16$, $16 - 12 = 4$ $16 + 5 = 21$, $21 - 5 = 16$</p>	<p>Find doubles to double 10.</p> <p>Example: Double 4 is 8. Double 7 is 14. Double 10 is 20.</p>	<p>Divide shapes into halves and quarters and recognise that a half is one of two equal pieces and that a quarter is one of four equal pieces.</p>	<p>Measure and record lengths and heights using uniform non-standard units and begin to use standard units.</p>	<p>Recognise, name and sort common 3D shapes. For example, cuboids (including cubes), pyramids and spheres.</p> <p>Example: It has flat faces, it is a cuboid. It rolls, it is a cylinder. It has eight corners, it is a cube.</p>	<p>Sort objects in a variety of ways, including using Carroll and Venn diagrams.</p> <p>Example: Carroll: Sort children in the class – like cheese / don't like cheese. Venn: Sort shapes – is red / is a triangle / is both / is neither.</p>
<p>Use the language of equal to, more than, less than (fewer), most, least to compare numbers.</p> <p>Example: 21 is more than 9. 68 is less than 73 because 60 is less than 70. 28, 15, 37, 41: 15 is the least, 41 is the most.</p>	<p>Solve missing number problems and understand a symbol being used for an unknown.</p> <p>Example: $10 - 4 = c$ $10 = c + 2$ $c + 7 = 10$</p>		<p>Read $\frac{1}{2}$, $\frac{1}{4}$ and $\frac{3}{4}$.</p>	<p>Consolidate knowledge of days of the week and the seasons and begin to know months of the year.</p>		
<p>Count, read and write numbers to 100 in numerals.</p> <p>Example: 1, 2, 3, 4, ...</p>	<p>Use number facts to solve problems in number stories.</p> <p>Example: There are five frogs sitting on a log. Two more frogs jump on. How many are sitting on the log now? There are ten cubes in two tubs. If one tub has six cubes in it, how many must the other tub have? There are six aliens in a spaceship, then two aliens leave. How many aliens in the spaceship now?</p>			<p>Compare, describe and solve practical problems for time.</p>		
<p>Estimate a quantity by choosing an appropriate range; count a quantity by grouping in 10s and 5s.</p> <p>Example: How many leaves are there? 10 to 19, 20 to 29, 30 to 39, 40 to 49, 50 or more? Count: 10, 20, 30, 8 there are 38 leaves.</p>	<p>Know number bonds to 5, 6 and 7 and derive related subtraction facts.</p> <p>Example: $5 - 1 = 4$ $6 - 3 = 3$ $7 - 5 = 2$</p>			<p>Measure and begin to record time.</p> <p>Example: What will we be doing at 6 o'clock? How many hours in a day? How many times can you write your name in 1 minute?</p>		

Year One Spring

<p>Begin to see 2-digit numbers as some 10s and some 1s.</p> <p>Example: $52 = 50 + 2$, five 10s and two 1s. $64 = 60 + 4$, six 10s and four 1s. $23 = 20 + 3$, two 10s and three 1s.</p>	<p>Add 1-digit and 2-digit numbers to 20, including adding a 1-digit number to a 2-digit number by counting on.</p> <p>Example: $44 + 4$ $74 + 3$ $83 + 6$</p>			<p>Sequence events in chronological order using language. For example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening.</p> <p>Example: What day comes after Friday? When do you go to sleep? What did you do yesterday morning?</p>		
<p>Given a number, identify one more and one less, any number up to 100.</p> <p>Example: 1 more than 56 is 57, 1 less than 56 is 55. 1 more than 24 is 25, 1 less than 24 is 23. 1 more than 41 is 42, 1 less than 41 is 40.</p>	<p>Subtract 1-digit and 2-digit numbers to 20, including subtracting a 1-digit number from a 2-digit number by counting back.</p> <p>Example: $28 - 3$ $68 - 4$ $37 - 6$</p>			<p>Begin to tell the time to the hour and half past the hour on digital and analogue clocks and draw the hands on a clock face to show these times.</p> <p>Example: Three o'clock 12 o'clock 7:00</p>		
<p>Count in multiples of 2sto 20.</p> <p>Example: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20</p>	<p>Begin to know number bonds to 8 and 9.</p> <p>Example: $8 = 8 + 0$, $7 + 1$, $6 + 2$, $5 + 3$, $4 + 4$ $9 = 9 + 0$, $8 + 1$, $7 + 2$, $6 + 3$, $5 + 4$</p>					
<p>Count in multiples of 5s to 50.</p> <p>Example: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50</p>	<p>Add by putting the larger number first.</p> <p>Example: Work out $3 + 16$ by putting 16 first and counting on 3.</p>					
<p>Count in multiples of 10s from 10 to 100, and back again, recognising that the multiples end in 0.</p> <p>Example: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100 100, 90, 80, 70, 60, 50, 40, 30, 20, 10</p>						
<p>Count on and back in multiples of 10s, to and from any number up to 100.</p> <p>Example: 14, 24, 34, 44, 54, ... 75, 65, 55, 45, 35, ... 9, 19, 29, 39, 49, ...</p>						

<p>Compare and order 2-digit numbers and say a number between two numbers.</p> <p>Example: 29, 68, 73, 82, 91 69, 70, 71 and 72 all come between 68 and 73. 89 is bigger than 78 because it has more 10s.</p>	<p>Solve 1-step problems that involve addition or subtraction using concrete objects and pictorial representations.</p>	<p>Know doubles to double 10 and find related halves.</p> <p>Example: Double 6 is 12, half of 12 is 6. Double 8 is 16, half of 16 is 8. Double 9 is 18, half of 18 is 9.</p>	<p>Recognise, find and name a quarter as one of four equal parts of an object or shape.</p>	<p>Compare, describe and solve practical problems, e.g. by direct comparisons, for lengths and heights, weight and capacity.</p> <p>Example: Which holds more, the jug or the bottle? Which snake is the shortest?</p>	<p>Identify and continue a repeating pattern of shapes.</p>	<p>Begin to create, read and interpret a block graph.</p> <p>Example: Weigh pieces of fruit using wooden bricks. Draw a block graph showing the weight of each piece of fruit, where each block represents one wooden brick. How many bricks does the apple weigh?</p>
<p>Say the number 1 or 10 more or 1 or 10 less than any number up to 100.</p> <p>Example: 1 more than 33 is 34, 1 less is 32. 10 more than 33 is 43, 10 less than 33 is 23. 10 more than 58 is 68, 10 less than 58 is 48. 10 more than 21 is 31, 10 less than 21 is 11.</p>	<p>Find 10 more than any number to 90 by counting on in 10s rather than counting on in 1s.</p> <p>Example: $28 + 10 = 38$ $41 + 10 = 51$ $50 + 10 = 60$</p>	<p>Begin to multiply by 2, 5 and 10 by counting in 2s, 5s and 10s, using repeated addition and spotting patterns.</p> <p>Example: 2, 4, 6, 8, 10: $2 + 2 + 2 + 2 + 2 = 10$ 10, 20, 30, 40, 50: $10 + 10 + 10 + 10 + 10 = 50$ 5, 10, 15, 20, 25, 30, 35, 40, 45, 50: $5 + 5 + 5 + 5 + 5 + 5 + 5 + 5 + 5 + 5 = 50$</p>	<p>Recognise, find and name a half as one of two equal parts of an object, shape or quantity.</p> <p>Example: $\frac{1}{2}$ of 6 $\frac{1}{2}$ of 8 $\frac{1}{2}$ of 12 $\frac{1}{2}$ of 3 is $1\frac{1}{2}$</p>	<p>Recognise and know the value of different denominations of coins and notes.</p> <p>Example: 1p, 2p, 5p, 10p, 20p, 50p, £1 £2, £5, £10, £20, £50</p>	<p>Identify and describe with reference to their properties common 2D and 3D shapes.</p>	<p>Read and interpret a simple pictogram.</p> <p>Example: Display a pictogram showing the different pets in the class. How many children have a rabbit? Which pet is the least popular? Which pet is the most common? How many more children have a dog than have a cat?</p>
<p>Identify patterns on a 100-square.</p> <p>Example: The numbers down each column go up in 10s. In the numbers along the diagonal (bottom left to top right), the 1s digits go up in 1s and the 10s digits go down in 1s.</p>	<p>Find 10 less than any number to 100 by counting back in 10s rather than counting back in 1s.</p> <p>Example: $27 - 10 = 17$ $32 - 10 = 22$ $93 - 10 = 83$</p>	<p>Count in 2s, 5s and 10s to solve grouping problems.</p> <p>Example: Show three towers of five cubes. 5, 10, 15. There are 15 cubes. Show five towers of two cubes. 2, 4, 6, 8, 10. There are 10 cubes. Show six towers of ten cubes. 10, 20, 30, 40, 50, 60. There are 60 cubes.</p>	<p>Begin to halve odd numbers to 10.</p> <p>Example: Half of 3 is $1\frac{1}{2}$. Half of 7 is $3\frac{1}{2}$. Half of 9 is $4\frac{1}{2}$.</p>	<p>Recognise and use language relating to dates, including days of the week, weeks, months and years.</p> <p>Example: List the months from January to December. When is your birthday? What month comes after July?</p>		
<p>Locate 2-digit numbers on a 1-100 grid and beaded line.</p>	<p>Know pairs of numbers which make the numbers to 9 and derive related subtraction facts.</p> <p>Example: $9 - 5 = 4$ $9 - 4 = 5$ $9 - 8 = 1$</p>	<p>Solve 1-step problems involving multiplication by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.</p> <p>Example: There are three sticks of five cubes. How many cubes? $3 \times 5 = 15$. Use 1p coins. Double 3p is 6p. Share seven apples between two children. $3\frac{1}{2}$ apples each.</p>		<p>Tell the time to the hour and half past the hour on digital and analogue clocks and draw the hands on a clock face to show these times.</p> <p>Example: Half past three Half past four 6:30</p>		

Year One Autumn

Count in multiples of 2s to 20 and beyond, spotting patterns. Example: ..., 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, ... The numbers always end in 0, 2, 4, 6, 8	Bridge 10 when adding pairs of 1-digit numbers. Example: $8 + 7$ as $8 + 2 + 5$ $9 + 2$ as $9 + 1 + 1$ $6 + 7$ as $6 + 4 + 3$			Measure and begin to record mass/weight. Example: An apple weighs the same as three blocks. An orange weighs the same as four blocks. The orange weighs more than the apple.		
Count in multiples of 5s to 50 and beyond and know that multiples of 5 end in 0 or 5. Example: ..., 30, 35, 40, 45, 50, 55, 60, 65, 70, ...	Sort additions into those you 'just know' and those you work out. Example: Just know: $4 + 2$, $10 + 10$ Work out: $19 + 7$, $13 - 7$			Measure and begin to record capacity. Example: The saucepan holds more water than the mug. It takes four yoghurt pots to fill the bottle with sand. The watering can holds the most water.		
Identify 10s and 1s in 2-digit numbers, and say how many 10s and 1s in a given 2-digit number. Example: $58 = 50 + 8$, five 10s and eight 1s. $95 = 90 + 5$, nine 10s and five 1s. $26 = 20 + 6$, two 10s and six 1s.	Add 1-digit and 2-digit numbers to 20, including using number facts to add 1-digit numbers to 2-digit numbers. Example: Use $5 + 2$ to work out $45 + 2$ or $85 + 2$.			Find change from 10p and 20p using counting up and number facts. Example: $10p - 3p$ $10p - 8p$ $20p - 17p$		
	Subtract 1-digit and 2-digit numbers to 20, including using number facts to subtract 1-digit numbers from 2-digit numbers. Example: Use $5 - 2$ to work out $45 - 2$ or $85 - 2$.					
	Add 1-digit and 2-digit numbers to 20, including adding three small numbers using pairs to 10 and doubles. Example: $5 + 5 + 8$ $7 + 9 + 3$ $6 + 4 + 6$					