	KEY STAGE 1	

Children in Years 1 and 2 will be given a really solid foundation in the basic building blocks of mental and written arithmetic. Through being taught place value, children will develop an understanding of how numbers work, so that they are confident with 2-digit numbers and beginning to read and say numbers above 100.

Addition and Subtraction: A focus on number bonds, first via practical hands-on experiences and subsequently using memorisation techniques, enables a good grounding in these crucial facts, and ensures that all children leave Year 2 knowing the pairs of numbers which make all the numbers up to 10 at least. Children will also have experienced and been taught pairs to 20. Children's knowledge of number facts enables them to add several 1-digit numbers, and to add/subtract a 1-digit number to/from a 2-digit number. Another important conceptual tool is the ability to add/subtract 1 or 10, and to understand which digit changes and why. This understanding is extended to enable children to add and subtract multiples of 10 to and from any 2-digit number. The most important application of this knowledge is the ability to add or subtract any pair of 2-digit numbers by counting on or back in 10s and 1s. Children may extend this to adding by partitioning numbers into 10s and 1s.	**Multiplication and Division:** Children will be taught to count in 2s, 3s, 5s and 10s, and will relate this skill to repeated addition. Children will meet and begin to learn the associated ×2, ×3, ×5 and ×10 tables. Engaging in a practical way with the concept of repeated addition and the use of arrays enables children to develop a preliminary understanding of multiplication, and asking them to consider how many groups of a given number make a total will introduce them to the idea of division. Children will also be taught to double and halve numbers, and will thus experience scaling up or down as a further aspect of multiplication and division.	**Fractions:** Fractions will be introduced as numbers and as operators, specifically in relation to halves, quarters and thirds.

	Year 1		
	Mental calculation	**Written calculation**	**Default for ALL children**
Y1 +	Number bonds ('story' of 5, 6, 7, 8, 9 and 10) Count on in 1s from a given 2-digit number Add two 1-digit numbers Add three 1-digit numbers, spotting doubles or pairs to 10 Count on in 10s from any given 2-digit number Add 10 to any given 2-digit number Use number facts to add 1-digit numbers to 2-digit numbers e.g. *Use 4 + 3 to work out 24 + 3, 34 + 3* Add by putting the larger number first		Pairs with a total of 10 Count in 1s Count in 10s Count on 1 from any given 2-digit number

	Mental calculation	Written calculation	Default for ALL children
Y1 **−**	Number bonds ('story' of 5, 6, 7, 8, 9 and 10) Count back in 1s from a given 2-digit number Subtract one 1-digit number from another Count back in 10s from any given 2-digit number Subtract 10 from any given 2-digit number Use number facts to subtract 1-digit numbers from 2-digit numbers e.g. *Use 7 – 2 to work out 27 – 2, 37 – 2*		Pairs with a total of 10 Count back in 1s from 20 to 0 Count back in 10s from 100 to 0 Count back 1 from any given 2-digit number
Y1 **×**	Begin to count in 2s, 5s and 10s Begin to say what three 5s are by counting in 5s, or what four 2s are by counting in 2s, etc. Double numbers to 10		Begin to count in 2s and 10s Double numbers to 5 using fingers
Y1 **÷**	Begin to count in 2s, 5s and 10s Find half of even numbers to 12 and know it is hard to halve odd numbers Find half of even numbers by sharing Begin to use visual and concrete arrays or 'sets of' to find how many sets of a small number make a larger number		Begin to count in 2s and 10s Find half of even numbers by sharing
		Year 2	
	Mental calculation	**Written calculation**	**Default for ALL children**

Y2
+
	Number bonds – know all the pairs of numbers which make all the numbers to 12, and pairs with a total of 20
	Count on in 1s and 10s from any given 2-digit number
	Add two or three 1-digit numbers
	Add a 1-digit number to any 2-digit number using number facts, including bridging multiples of 10
	   e.g. *45 + 4*
	   e.g. *38 + 7*
			Know pairs of numbers which make each total up to 10
			Add two 1-digit numbers
			Add a 1-digit number to a 2-digit number by counting on in 1s
			Add 10 and small multiples of 10 to a 2-digit number by counting on in 10s

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	Add 10 and small multiples of 10 to any given 2-digit number Add any pair of 2-digit numbers		

Y2
−
	Number bonds – know all the pairs of numbers which make all the numbers to 12
	Count back in 1s and 10s from any given 2-digit number
	Subtract a 1-digit number from any 2-digit number using number facts, including bridging multiples of 10
	    e.g. *56 – 3*
	    e.g. *53 – 5*
	Subtract 10 and small multiples of 10 from any given 2-digit number
	Subtract any pair of 2-digit numbers by counting back in 10s and 1s or by counting up
			Know pairs of numbers which make each total up to 10
			Subtract a 1-digit number from a 2-digit number by counting back in 1s
			Subtract 10 and small multiples of 10 from a 2-digit number by counting back in 10s

Y2
×
	Count in 2s, 5s and 10s
	Begin to count in 3s
	Begin to understand that multiplication is repeated addition and to use arrays
	    e.g. *3 × 4 is three rows of 4 dots*
	Begin to learn the ×2, ×3, ×5 and ×10 tables, seeing these as 'lots of'
	    e.g. *5 lots of 2, 6 lots of 2, 7 lots of 2*
	Double numbers up to 20
	Begin to double multiples of 5 to 100
	Begin to double 2-digit numbers less than 50 with 1s digits of 1, 2, 3, 4 or 5
			Count in 2s, 5s and 10s
			Begin to use and understand simple arrays
			    e.g. *2 × 4 is two lots of four*
			Double numbers up to 10
			Double multiples of 10 to 50

Y2 **÷**	Count in 2s, 5s and 10s Begin to count in 3s Using fingers, say where a given number is in the 2s, 5s or 10s count		Count in 2s, 5s and 10s Say how many rows in a given array e.g. *How many rows of 5 are in an array of 3 × 5?*

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		Halve numbers to 12
e.g. *8 is the fourth number when I count in 2s* Relate division to grouping e.g. *How many groups of 5 in 15?* Halve numbers to 20 Begin to halve numbers to 40 and multiples of 10 to 100 Find $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$ and $\frac{3}{4}$ of a quantity of objects and of amounts (whole number answers)		Find $\frac{1}{2}$ of amounts