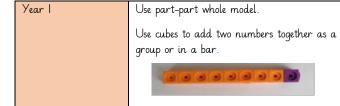
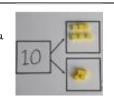
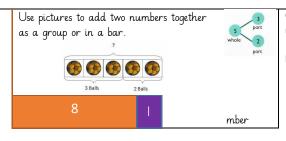


Addition	Concrete	Pictorial	Abstract
Addition  Foundation	Use part-part whole model.  Use cubes to add two numbers together as a group or in a bar.	Make a record in pictures, words or symbols of addition activities already carried out.  Use pictures to add two numbers together as a group or in a bar.	Children will engage in a wide variety of songs, games and activities.  They will begin to relate addition to combining two groups of objects, first by counting all of them and then from counting on from the largest number.  Using quantities and objects children add two single digit numbers.  Children may be introduced to written
	Simple word problems using their fingers.	In a bar.  3 5 whole 2 2 3 3 8 1  Initially use a number track to count on for addition, counting on from the largest number:  8 + 7 = 15 'Put your finger on number eight and count on seven.'	'number sentence' e.g. 4 + 3 = 7  Construct number sentences to go with practical activities.



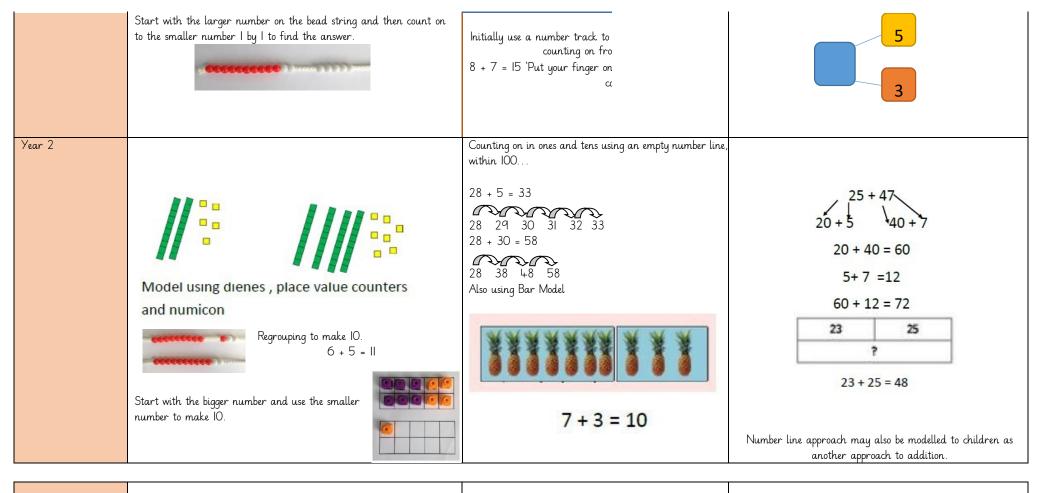




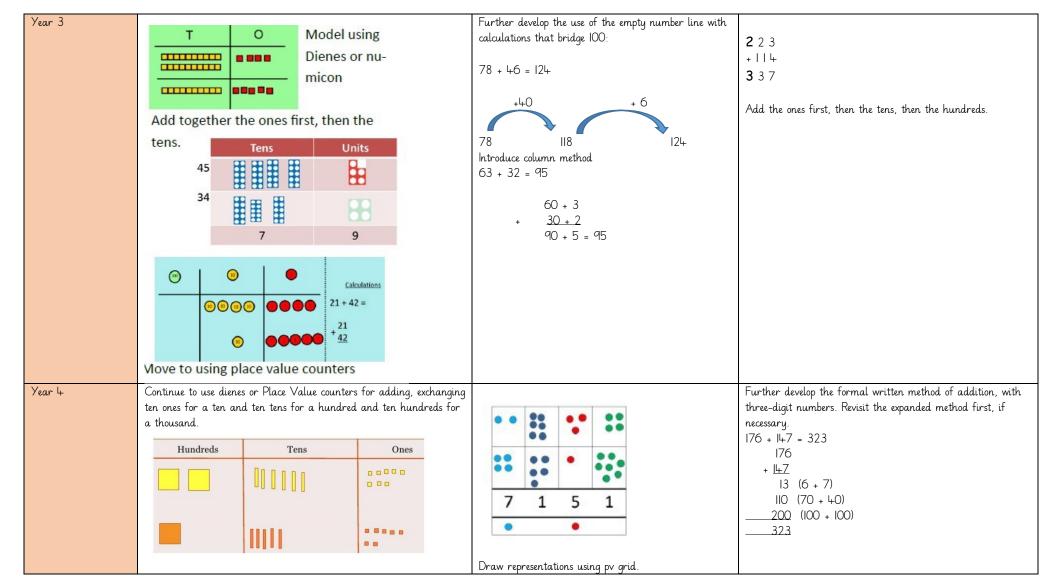
Children will continue to practice counting on from any number e.g. 'Put five in your head and count on four.'

Using the part-part whole diagram to move into the abstract









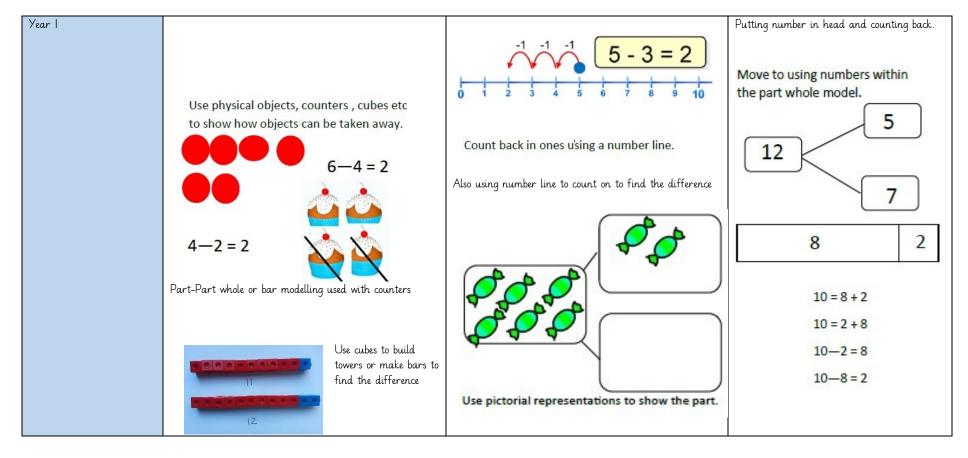


			This will lead into the formal written method. 1845 + 526 = 2371 1845
Year 5	Use Year 4 method if appropriate	Use Year 4 method if appropriate	Continue to teach the use of empty number lines with larger numbers (and decimals), as appropriate.
			Continue to develop the formal written method for addition with larger numbers (and decimal numbers) and with the addition of three or more numbers.
			£154.75 + £233.82 = £388.57
			154·75 + <u>233·82</u> 388·57
Year 6	Use Year 4 method if appropriate	Use Year 4 method if appropriate	Our aim is that by the end of Y6, children use mental methods (with jottings) when appropriate, but for calculations that they cannot do in their heads, they use an efficient formal written method accurately and with confidence.

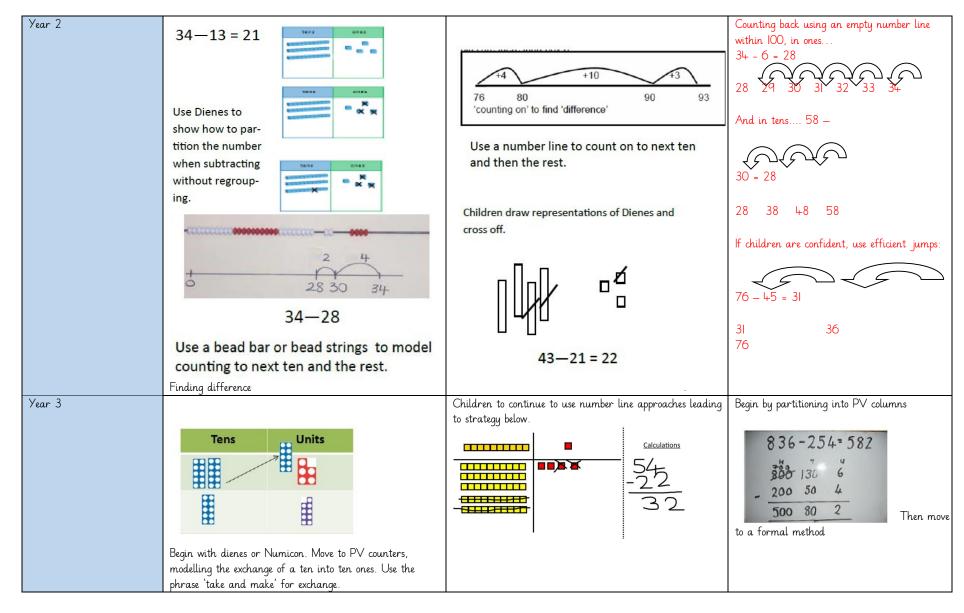


Subtraction	Concrete	Pictorial	Abstract
Foundation	Use physical objects, counters, cubes etc to show how objects can be taken away.  6-4 = 2  4-2 = 2  Part-Part whole or bar modelling used with counters Solve simple word problems using their fingers  5-1 = 4	Children draw representations of the objects. Including part-part whole or bar  5-1=4  model.	Children will engage in a wide variety of songs, games and activities Using quantities and objects children subtract two single digit numbers.  Children may be introduced to written 'number sentence' e.g. 7 - 3 = 4

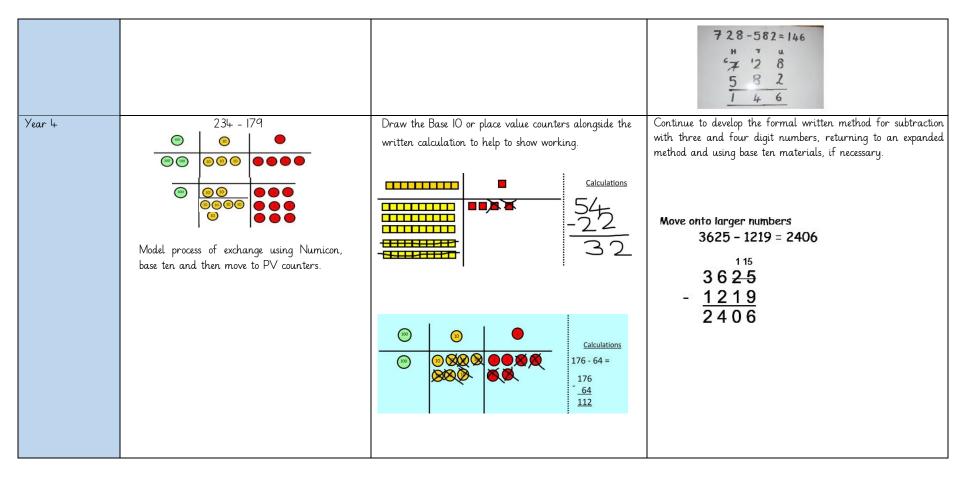




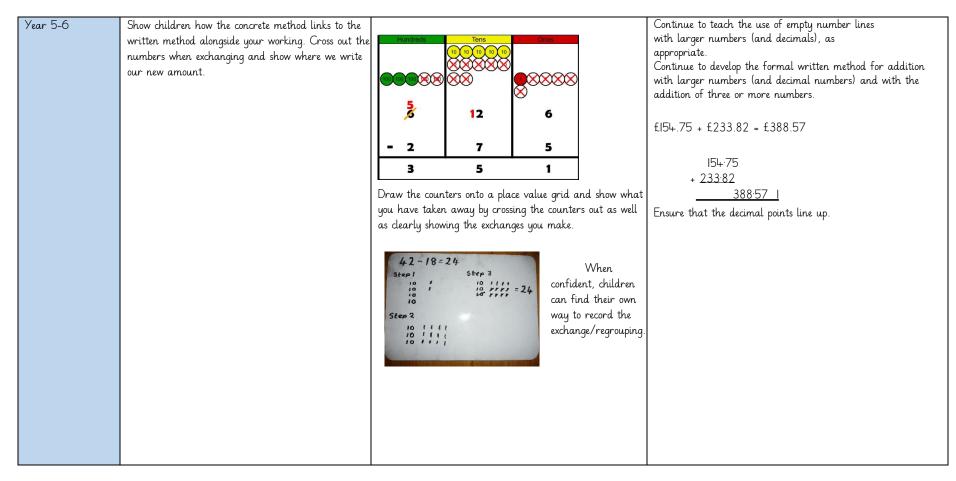








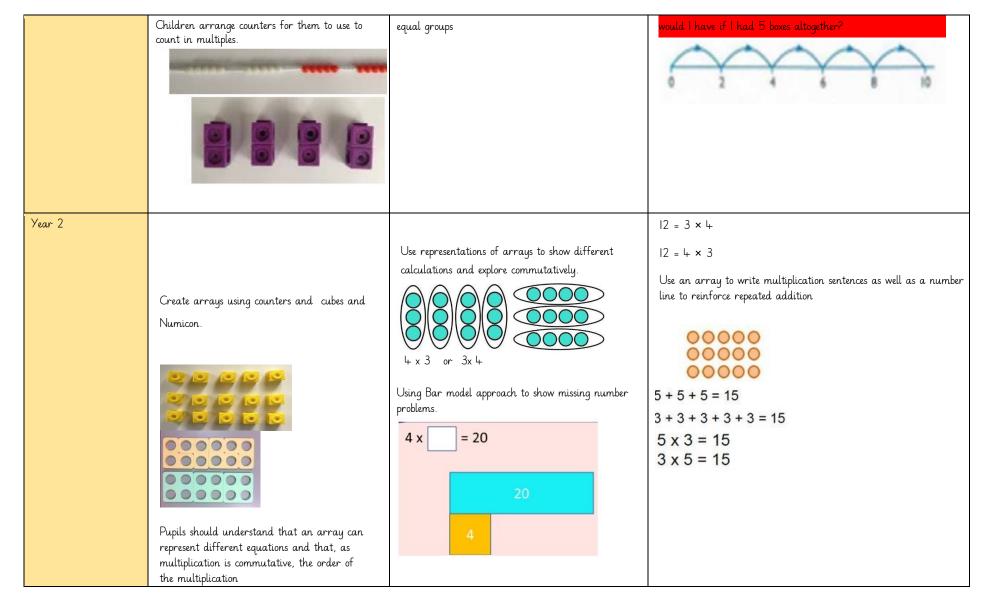




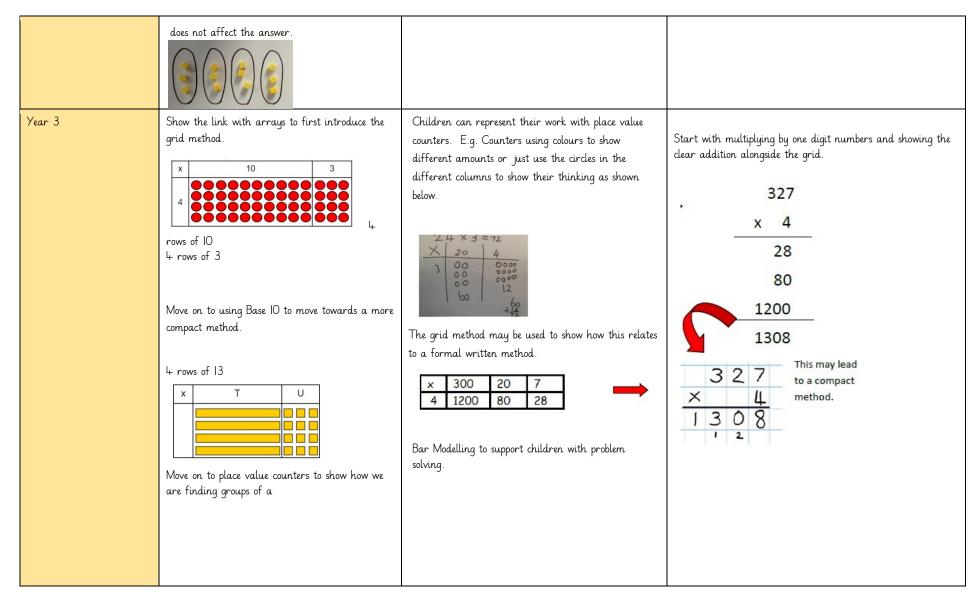


Multiplication	Concrete	Pictorial	Abstract
Foundation	Children to use counters and through song, begin to count in a given multiple.  Part —part whole used with counters  Begin to use resources to count in repeated groups of the same size: count in twos; fives; tens	Children draw visual representations of maths problems involving repeated addition and doubling.	Children shown multiplication number sentence alongside visual representation.  Children explore different objects to make doubles- dice, spots on ladybirds. Children shown abstract 'number sentence' alongside visual representation.  Children are able to chant in twos, fives and tens
Year I	In practical activities and through discussion they will begin to solve problems involving doubling.  Three apples for me and three apples for you. How many apples altogether?	Use different objects to add	Write addition sentences to describe objects and pictures.  2+2+2+2=10  Use pictorial including number lines to solve problems have 2 toys in a box. How many toys

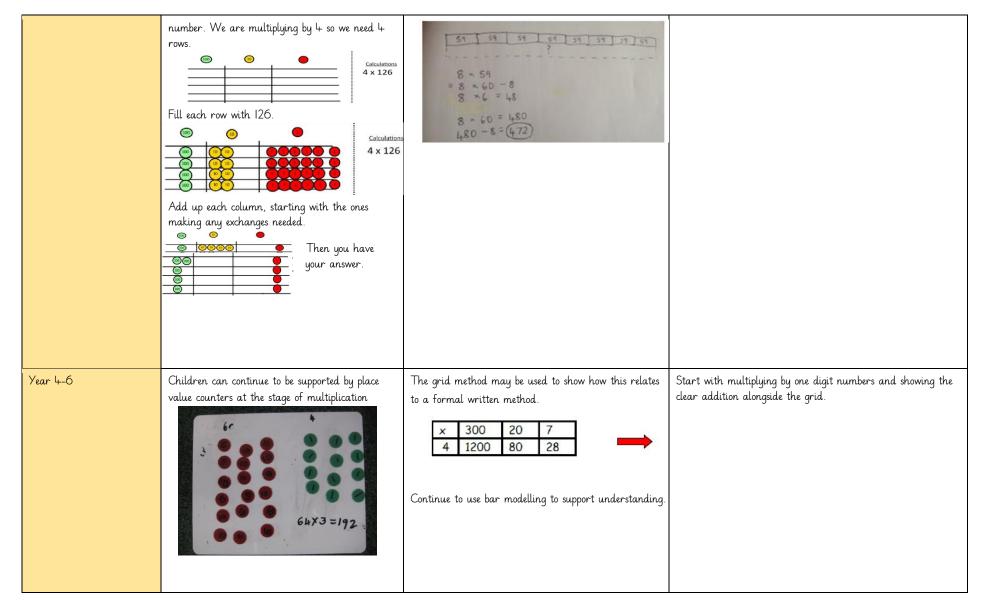




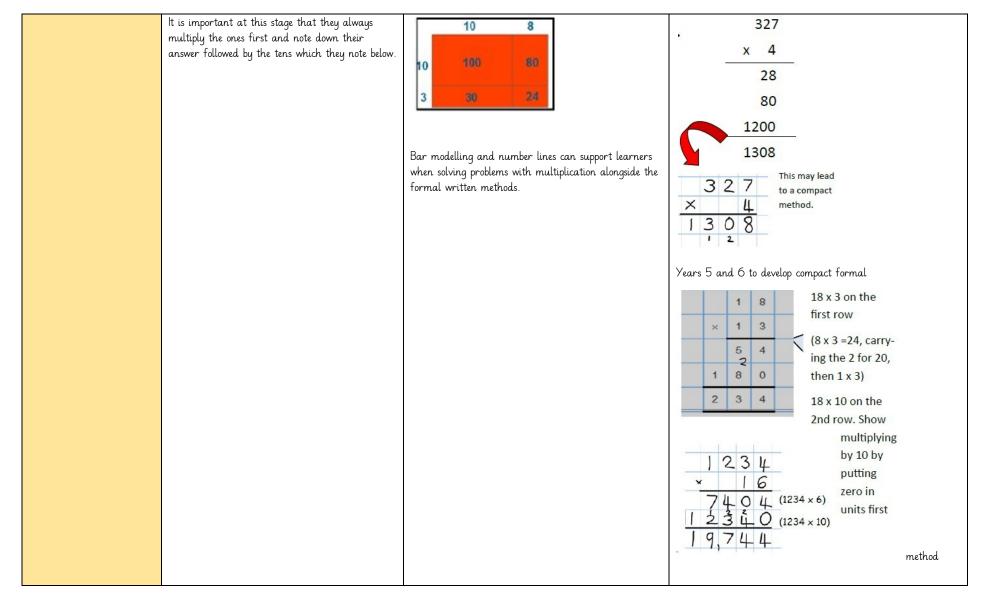








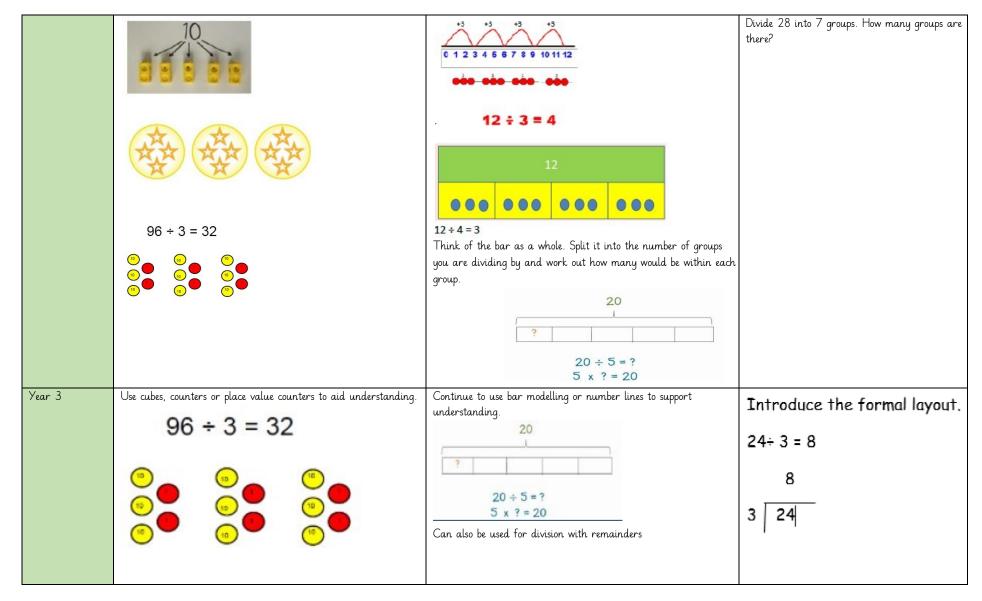




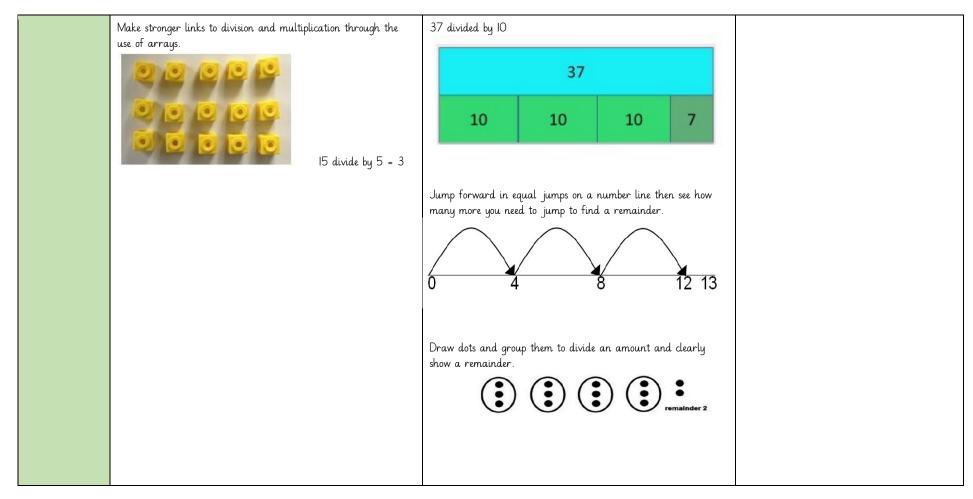


Division	Concrete	Pictorial	Abstract
Year I/EYFS	Children will share objects into equal groups and through discussion they will begin to solve problems involving halving and sharing.  I have 10 cubes, can you share them equally into 2 groups? Children use counters with partpart whole model.	Children to use pictures to support their sharing of quantities.  12 shared between 3 is 4  Children find 1 using counters and can also show this by drawing their own representations.	12 shared between 3 is 4.  Also introduce division sign  12 ÷ 3 = 4  Foundation to be shown number sentence alongside pictorial and concrete support.
Year 2	Use counters, cubes or place value counters to aide understanding.	Use bar modelling or number lines to support understanding.	28 ÷ 7 = 4

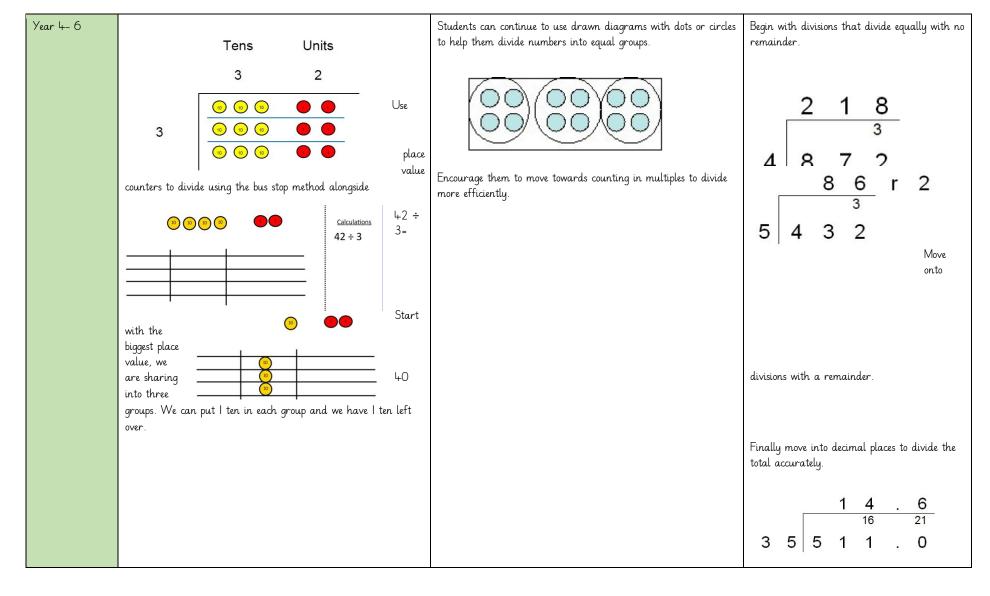




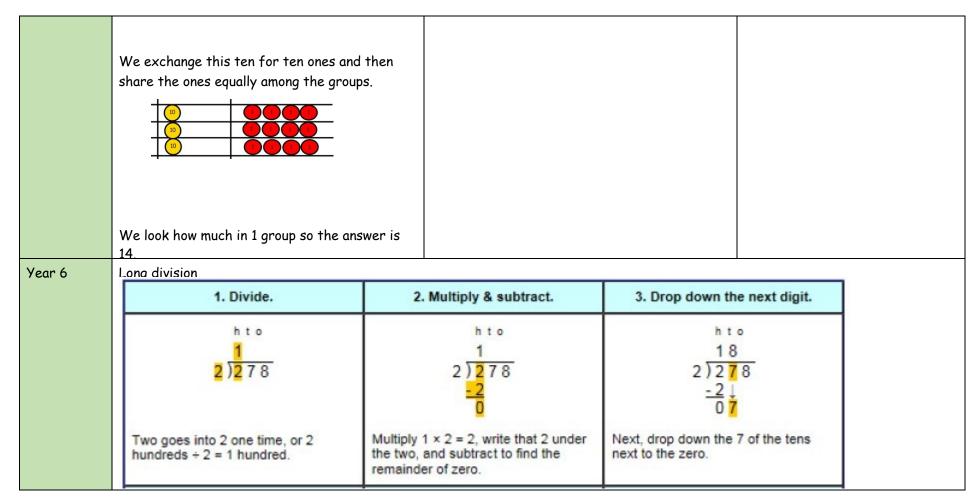














Divide.	Multiply & subtract.	Drop down the next digit.
1 3 2)278 -2 07	13 2)278 -2 07 -6 1	13 2)278 -2 07 -6 18
Divide 2 into 7. Place 3 into the quotient.	Multiply 3 × 2 = 6, write that 6 under the 7, and subtract to find the remainder of 1 ten.	Next, drop down the 8 of the one next to the 1 leftover ten.
1. Divide.	2. Multiply & subtract.	3. Drop down the next digit
139 2)278 -207 -6 18	139 2)278 -2 07 -6 18 -18	139 2)278 -2 07 -6 18 -18
Divide 2 into 18. Place 9 into the quotient.	Multiply 9 × 2 = 18, write that 18 under the 18, and subtract to find the	There are no more digits to drop down. The quotient is 139.