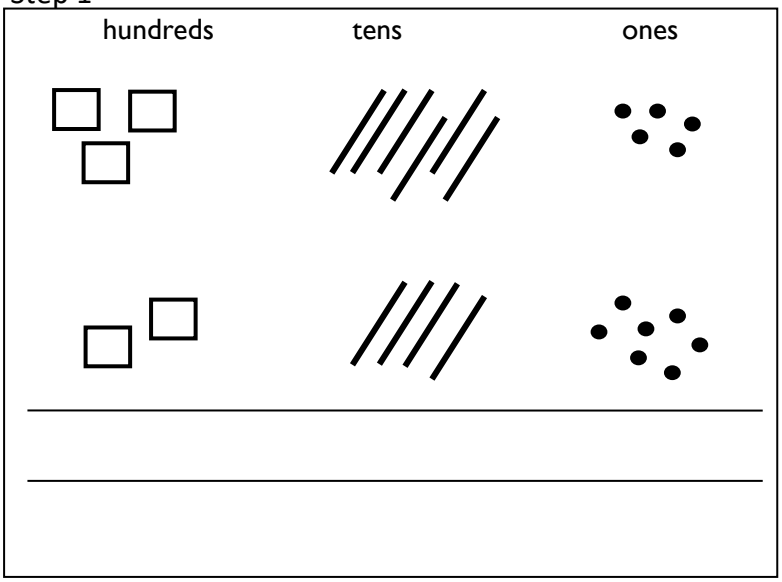
Which method will my child be using?

Addition

Year 4

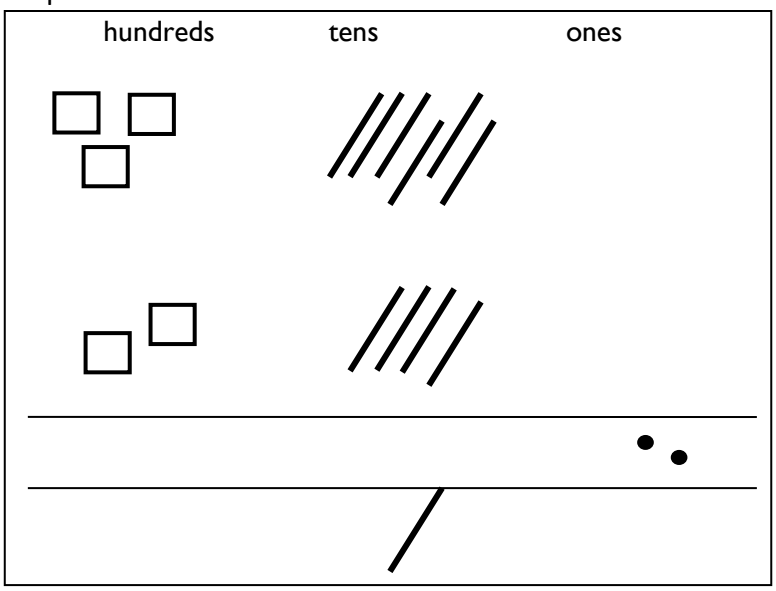
Children will continue to use Base 10 equipment and place value counters to support addition of 3 digit numbers.

Step 1



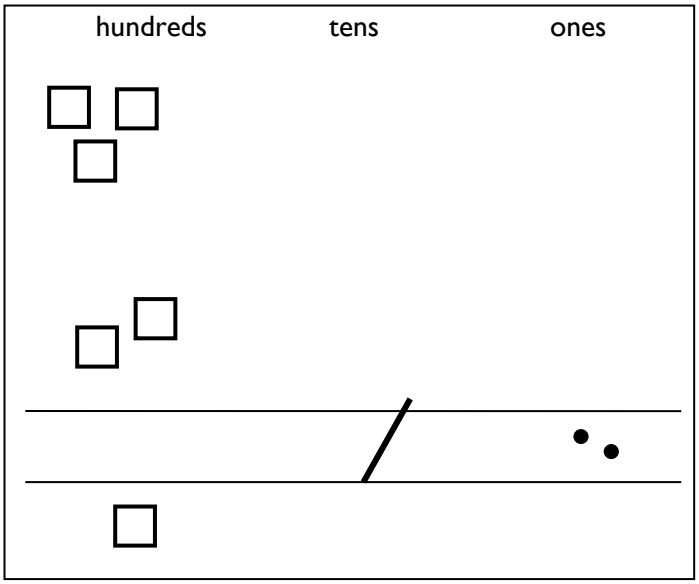
	H	T	O
	3	6	5
+	2	4	7

Step 2



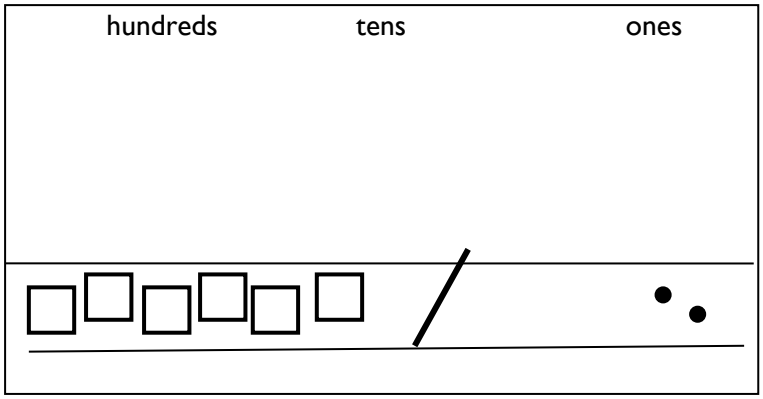
	H	T	O
	3	6	5
+	2	4	7
			2
		1	

Step 3



	H	T	O
	3	6	5
+	2	4	7
		1	2
	1	1	

Step 4



	H	T	O
	3	6	5
+	2	4	7
	6	1	2
	1	1	

By the end of Year 4, children should be using the written method confidently for numbers with up to 4 digits and with understanding. They will also be adding:

- several numbers with different numbers of digits, understanding the place value;
- *decimals with one decimal place, knowing that the decimal points line up under one another.*

Which method will my child be using?

Subtraction

Year 4

Children will continue to develop their use of a columnar method of subtraction in Year 4.

Step 1

	700	→	50	→ 4
-	200	→	80	→ 6

Step 2 (exchanging from tens to ones)

			40	
	700	→	~~50~~	→ ^{1}4
-	200	→	80	→ 6

Step 3 (exchanging from hundreds to tens)

	600		140	
	~~700~~	→	~~50~~	→ ^{1}4
-	200	→	80	→ 6

Step 4

	600		140		
	~~700~~	→	~~50~~	→ ^{1}4	
-	200	→	80	→ 6	
	400	→	60	→ 8	= 468

This would be recorded by the children as:

	600		140		
	~~700~~	→	~~50~~	→ ^{1}4	
-	200	→	80	→ 6	
	400	→	60	→ 8	= 468

When children are ready, this leads on to the compact method of decomposition:

		6	14	
	4	~~7~~	~~5~~	^{1}4
-	3	2	8	6
	1	4	6	8

By the end of Year 4, children should be using the written method confidently and with understanding. They will also be subtracting:

- numbers with different numbers of digits, understanding the place value;
- decimals with one decimal place, knowing that the decimal points line up under one another.

Which method will my child be using?

Multiplication

Year 4

Children will further develop their knowledge of the grid method to multiply any two-digit by any single-digit number, e.g.

79 x 8

x	70	9
8	560	72

$$\begin{array}{r} 560 \\ +\ 72 \\ \hline 632 \end{array}$$

To support the grid method, children should develop their understanding of place value and facts that are linked to their knowledge of tables. For example, in the calculation above, children should use their knowledge that 7 x 8 = 56 to know that 70 x 8 = 560.

By the end of the year, they will extend their use of the grid method to be able to multiply three-digit numbers by a single digit number, e.g. 346 x 8

x	300	40	6
8	2400	320	48

$$\begin{array}{r} 2400 \\ +\ 320 \\ +\ 48 \\ \hline 2768 \end{array}$$

When children are working with numbers where they can confidently and correctly calculate the addition (or parts of the addition) mentally, they may do so.

Children should also be using this method to solve problems and multiply numbers in the context of money or measures.

When children are secure with the grid method for multiplication, they may then be introduced to more columnar methods with the use of place value counters to aid their understanding.

Which method will my child be using?

Division

Year 4

Children will continue to develop their use of grouping (repeated subtraction) to be able to subtract multiples of the divisor, moving on to the use of the 'chunking' method. Partial tables/key facts box should be used every to support children in recall of multiplication facts to support efficient mental and written calculations in division. It will help them to identify the largest group they can subtract in one chunk.

1x	6
2x	12
4x	24
5x	30
10x	60
20x	120

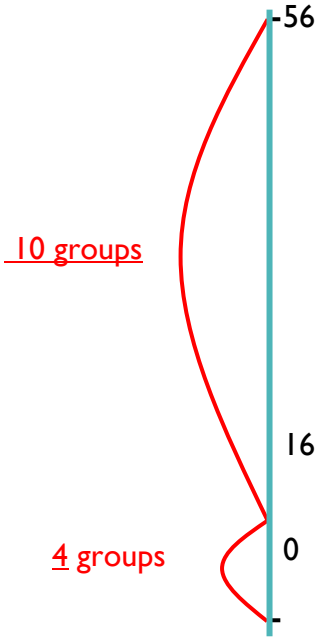
Groups of 6
Partial tables/key facts box

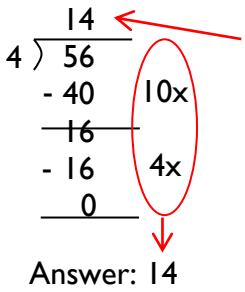
1x	7
2x	14
4x	28
5x	35
10x	70
20x	140

Groups of 7
Partial tables/key facts box

1x	9
2x	18
4x	36
5x	45
10x	90
20x	180

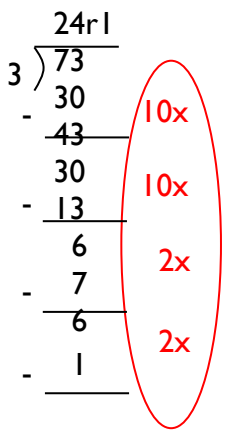
Groups of 9
Partial tables/key facts box





Children should write their answer above the calculation to make it easy to distinguish.

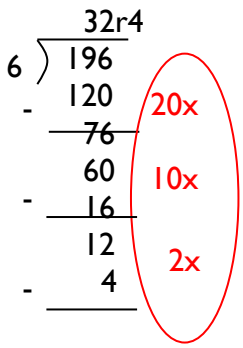
When developing their understanding of 'chunking', children should utilise a 'key facts' box, as shown below. This will help them in identifying the largest group they can subtract in one chunk rather than taking chunks of 10 groups each time which is not efficient. Any remainders should be shown as integers, e.g. 73 ÷ 3 = 24 remainder 1.



1x	3
2x	6
4x	12
5x	15
10x	30
20x	60

Groups of 3
Partial tables/key facts box

By the end of Y4, children should be able to use the chunking method to divide a three-digit number by a single digit number e.g. 196 ÷ 6 = 32 remainder 4.

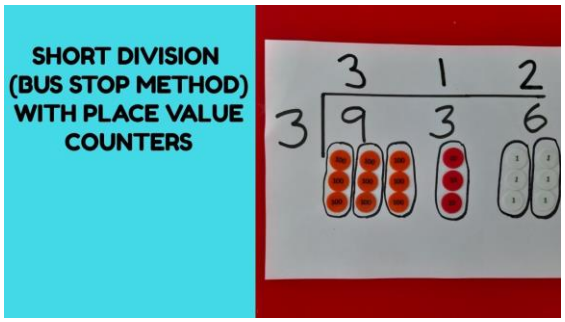


1x	6
2x	12
4x	24
5x	30
10x	60
20x	120

Groups of 6
Partial tables/key facts box

Children should be able to solve real life problems including those with money and measures. They need to be able to make decisions about what to do with remainders after division and round up or down accordingly.

Once children are confident and accurate when dividing by a single digit using partial tables, they can progress to the standard formal written method for short division



This can also then be extended to division which will have a remainder -

$$5\overline{)\,4\;{}^{4}3\;{}^{3}2}\quad \begin{array}{r} 8\;\;6 \\ \hline \end{array}\ \text{r } 2$$