Calculation policy

Addition

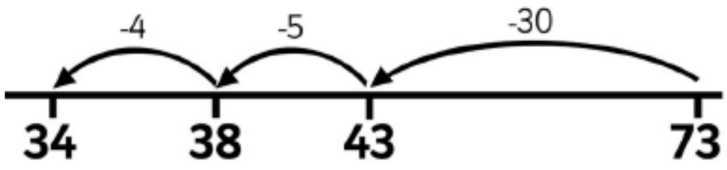
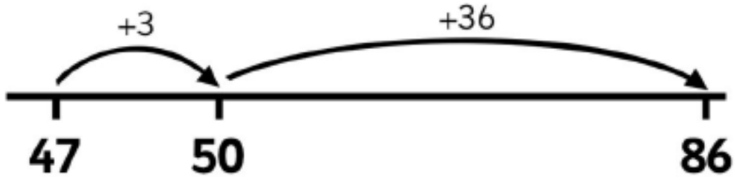
The different stages	Examples
EYFS/ Year 1 **Counting sets of objects.** **Secure up to 20.**	**Counting 9 toy dinosaurs or 12 bricks etc.**
Year 1 **Combining two sets of objects into one group and counting practically using numbers up to 20.**	**For 15 + 3 children may get 15 objects then 3 more and count them altogether.**
Year 1/2 **Drawing dots-informal jottings then count them altogether. Working towards numbers up to 100.**	**For 25 + 9 children to draw 25 dots and then 9 more.**
Year 2 **Counting on a number line with numbers on it using numbers up to 100.**	**54 + 7** **+1 +1 +1 +1 +1 +1 +1** **54 55 56 57 58 59 60 61**

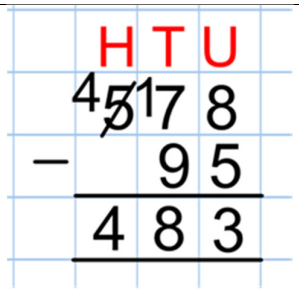
<table>
<tr>
<td>Year 2/3
Number line can continue to be used, bouncing forwards in increasingly larger amounts.</td>
<td>34 +23 =57

+10 +10 +1 +1 +1
34 | 44 | 54 | 55 | 56 | 57</td>
</tr>
<tr>
<td>Year 3/4
Write the numbers in columns.
Add the units first. Working with numbers up to 1000.</td>
<td>346
+ 251
597</td>
</tr>
<tr>
<td>Year 4 upwards
Column addition.
Write the numbers in columns.
Powers of ten are carried into the next column.</td>
<td>546
+375
921
1 1</td>
</tr>
<tr>
<td>Year 5 upwards
Column addition.
Write the numbers in columns.
Powers of ten are carried into the next column.
Numbers get increasingly larger and include decimals.
E.g. money.</td>
<td>£ 234.6
+ £ 457.5
£ 692.1
1 1 1</td>
</tr>
</table>

Subtraction

The different stages	Examples
EYFS/Year 1 **Practically get a group of objects and take some away**	**8 cars take 3 cars away.** **How many left?**
Year 1 **Jottings-draw a set of marks and then cross some out. .** **Secure with numbers to 20.**	12 - 5 = 7 
Year 1/2 **Count back on a number line with numbers already on it. Working with numbers to 100.**	**54 – 6 = 48** **-1 -1 -1 -1 -1 -1** **48 49 50 51 52 53 54**

Year 2 **Use a number line. Work by counting back in increasingly larger steps.** **Also work by counting on.**	73 - 39 = 34  Work out the difference between 47 and 86 = 39 
Year 3/4 **Column subtraction.** **Write numbers in columns. The largest numbers goes on top.** **Subtract units first.**	**T U** **8 7** **- 2 3** **6 4**

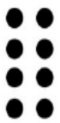
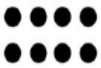
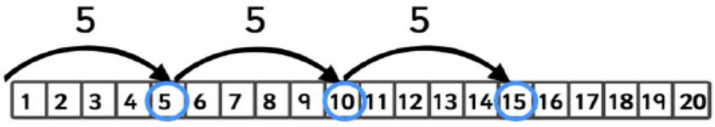
Year 4 upwards. Decomposition method. Write numbers in columns. Subtract smallest value first. Take a power of ten from the next column where necessary. Numbers get increasingly larger and include decimals. E.g. money	

Multiplication

Times table expectations.

By the end of Year 2, children should be able to recall and use multiplication facts for the 2, 5 and 10 times tables.

By the end of Year 4, children should be able to able to recall and use multiplication facts for all times tables up to 12 x 12.

The different stages	Examples
EYFS/Year 1 **Counting practically in repeated groups/patterns.**	**2 cars, 2 cars and 2 more cars.**
Year 1/2 **Grouping**	**4 x 2 = 8** 
Year 2 **Arrays**	**4 x 2 = 8** **or** **2 x 4 = 8**  
Year 2/3 **Repeated addition** **Repeated addition can be shown easily on a number line.**	**5 x 3 is 5 + 5 + 5 = 15** **or 3 lots of 5** 
Year 3 **Partitioning**	**14 x 6 = 84**

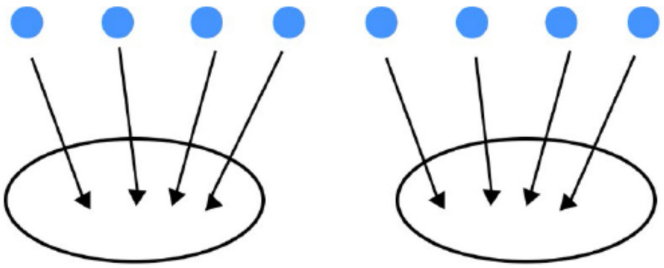
	10 x 6 = 60 4 x 6 = 24 **60 + 24 = 84**
Year 3/4 **Short multiplication.** **Write the numbers in columns.** **Multiples of powers of ten are carried underneath the next column.**	**37** **X 8** **296** **5**
Year 5 upwards **Long multiplication.** **Write the numbers in columns.** **Multiples of powers of ten are carried into the next column.**	**1 2 4** **X 2 6** **7 4 4** **1 2** **2 4 8 0** **3 2 2 4** **1 1**

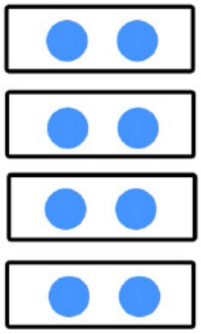
Division

Expectations.

By the end of Year 2, children should derive and recall division facts associated with 2, 5 and 10 times table.

By the end of Year 4, children should be able to derive and recall division facts for all times tables up to 12 x 12.

The different stages	Examples
EYFS/Year 1 **Children will develop their understanding of division and use jottings to support calculation.**	**8 ÷ 2 = 4** **Sharing equally.** **8 sweets are shared between 2 people. How many do they get each?** 
Year 1 **Grouping**	**There are 8 sweets. How many people can have 2 sweets each? Answer: 4.** 
Year 2/3 **Arrays**	**How many groups of 2 can I fit into 8?** **Answer: 4**

Division with small remainders using objects and pictures.	
Year 3/4 **Short division** **The divisor (7 in this example) is put into the dividend (98) moving left to right (highest to lowest place.)**	**98 ÷ 7 = 14** 1 4 7 | 9 8 2
Year 5 upwards **Long division** **Multiples of the divisor (15 in this example) are subtracted from the dividend (432). Remainders can be shown as a pure number (12 this example) or can be calculated further to find a decimal remainder.**	**432 ÷ 15 = 28 r 12 or 28.8** 2 8 · 8 1 5 | 4 3 2 · 0 3 0 1 3 2 1 2 0 1 2 0 1 2 0 0 15 30 45 60 75 90 105 120 135 150