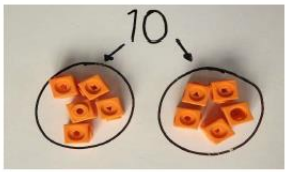
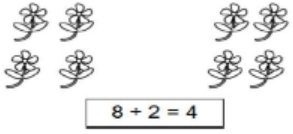
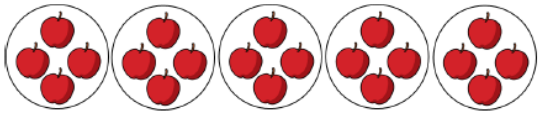
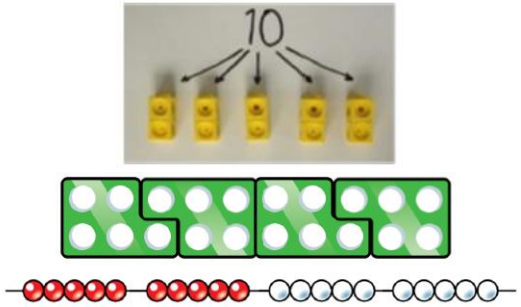
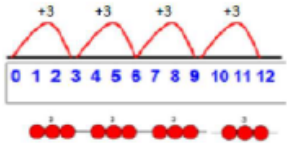
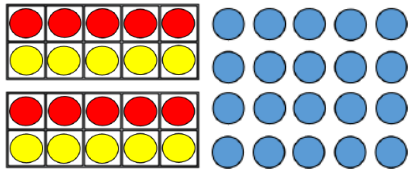
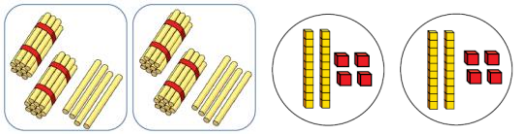
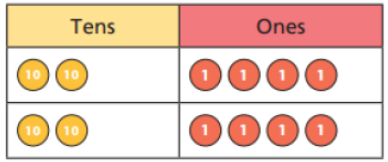
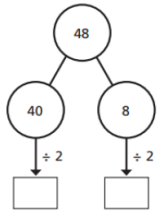
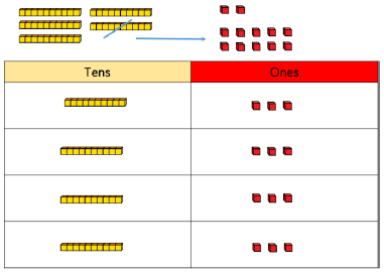
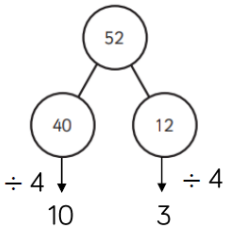
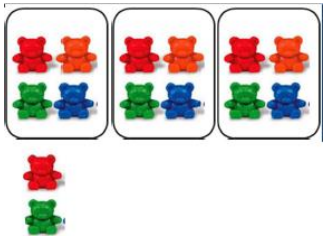
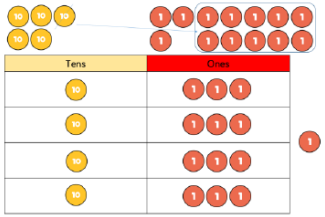
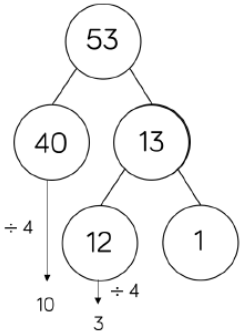
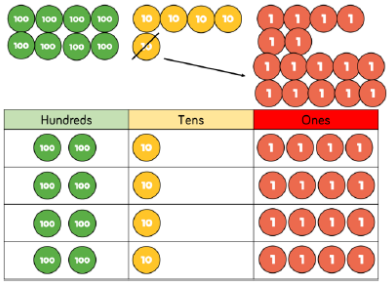
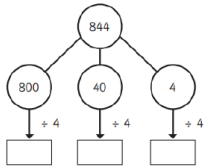
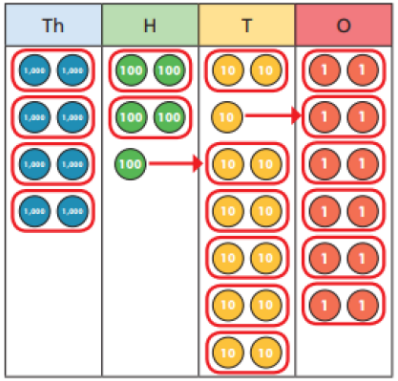
Calculations Policy – Division

Year	Skill	Concrete examples	Pictorial examples	Abstract examples
1/2	Solve one step problems with division (sharing).	Use physical objects to share amounts into equal groups.   	Use pictures to share quantities. Year 2 to start recording division formally.  8 ÷ 2 = 4  20 apples shared between 5.	There are 20 apples altogether. They are shared equally between 5 bags. How many apples are in each bag? $20 \div 5 = 4$
1/2	Solve one step problems with division (grouping).	Use physical objects to group quantities equally. 	Use number lines for grouping.  Use counters on ten frames or create arrays. 	There are 20 apples altogether. They are put in bags of 5. How many bags are there? $20 \div 5 = 4$
3	Divide 2-digits by 1-digits (no exchanging).	Use straw bundles, counters or Base 10. 	Use representations of counters or Base 10 on place value grids. 	$48 \div 2 = 24$ 

3	Divide 2-digits by 1-digit (with exchanging).	As above.	Use representations of counters or Base 10 on place value grids. 	$52 \div 4 = 13$  10 + 3 = 13
3/4	Divide 2-digits by 1-digits (with remainders).	Use physical objects to show remainders. 	Use jumps on a number line to show remainder.  Use dots to group and show remainder.  Use representations of counters or Base 10 on place value grids. 	$53 \div 4 = 13\ r1$ 
4	Divide 3-digit by 1-digit (with exchanging).	Use Base 10 or counters to physically group and show exchanges.	Use representations of counters or Base 10 on place value grids. 	$844 \div 4 = 211$  Introduce expanded ‘bus stop’. 200 + 10 + 1 = 211 4 | 800 + 40 + 4

<table>
<tr>
<td>5</td>
<td>Divide 3 or 4-digit by 1-digit (grouping).</td>
<td>As above.</td>
<td>Use representations of counters or Base 10 on place value grids.
 
</td>
<td>8,532 ÷ 2 = 4,266
Expanded ‘bus stop’ method before moving to short division.
4000 + 200 + 60 + 6 = 4266
2 | 8000 + 500 + 30 + 2
400 + 130 + 2
120 + 12

4000 + 250 + 15 + 1 = 4266
2 | 8000 + 500 + 30 + 2</td>
</tr>
<tr>
<td>6</td>
<td>Short division.</td>
<td>Children are encouraged to move away from concrete and pictorial methods as they are less effective.</td>
<td colspan="2">432 ÷ 12 = 36
0 3 6
12 | 4 | 4 3 | 7 2

7,335 ÷ 15 = 489
0 4 8 9
15 | 7 | 7 3 | 13 3 | 13 5
15 30 45 60 75 90 105 120 135 150</td>
</tr>
<tr>
<td>6</td>
<td>Long division.</td>
<td>As above.</td>
<td colspan="2">432 ÷ 12 = 36
0 3 6
1 2 | 4 3 2
– 3 6 0 (×30)
7 2
– 7 2 (×6)
0
12 × 1 = 12
12 × 2 = 24
12 × 3 = 36
12 × 4 = 48
12 × 5 = 60
12 × 6 = 72
12 × 7 = 84
12 × 8 = 96
12 × 7 = 108
12 × 10 = 120

372 ÷ 15 = 24 r12
2 4 r 1 2
1 5 | 3 7 2
– 3 0 0
7 2
– 6 0
1 2
1 × 15 = 15
2 × 15 = 30
3 × 15 = 45
4 × 15 = 60
5 × 15 = 75
10 × 15 = 150</td>
</tr>
</table>