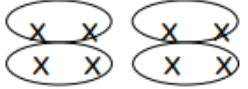
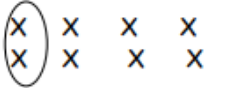


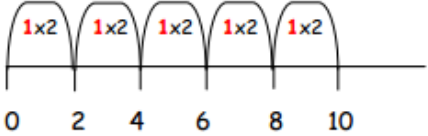

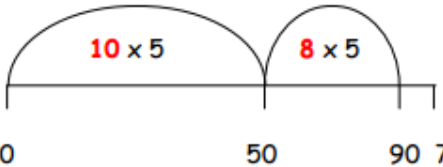


Abbey Primary School Written Calculation Policy-Division

Stage	EXAMPLES	VOCABULARY	HOW IT WILL LOOK IN WRITTEN FORM	NOTES	Big Maths NC 2014
1	<p>Getting children to share out objects to a group. e.g. Can we share these cakes out?</p>	<p>sharing, grouping, sorting, set</p>	<p>Mostly practical activities - no formal/informal recording</p>	<p>Children will mainly use concrete apparatus and practical activities to divide. They will also use real life and role play sessions to put the meaning across. Resources Counters, Small toys, Buttons, Cubes, Pegs etc. Gloves and socks to pair up.</p>	
2	<p>If I can see 12 wheels, how many bikes are there?</p> <p>Share 10 carrots between 5 children.</p>	<p>count out, share out, left over, left, how many...?, sort, group, set, sharing, grouping</p>	<p>Mainly practical activities with pictorial representations:</p> <p>Grouping:  how many groups?</p> <p>Sharing:  how many in a group?</p>	<p>At this stage the children will still be doing practical work with concrete apparatus and will use more pictorial representations. Questions will be given as real life examples and still include lots of role play Resources Counters, Small toys, Buttons, Cubes, Pegs etc. Gloves and socks to pair up.</p>	<p>BM Steps 1 - 9</p>

Stage	EXAMPLES	VOCABULARY	HOW IT WILL LOOK IN WRITTEN FORM	NOTES	Big Maths NC 2014
3	<p>Share 18 between 2.</p> <p>Divide 6 by 3.</p> <p>How many groups of 10 will make 80?</p>	<p>Share, share equally, one each, two each.....,group in pairs, threes, tens, equal groups of, divide, divided by, divided into, left, left over, how many...?, group, set</p>	<p>Pictorial representations:</p> <p>Grouping: </p> <p>How many twos make 8?</p> <p>Sharing:  Share 6 sweets between 2 boys.</p>	<p>Children will still use many ideas as above but should begin to move on to using visualisation strategies. This would then lead on to a simple written form of division based on early times table facts.</p> <p>Resources Concrete things if still required (see above) Hoops for sharing Numicon for grouping.</p>	BM Steps 1 - 9
4	<p>How many fives make 45?</p> <p>Divide 25 by 5.</p> <p>A baker bakes 24 buns. 6 buns in every box - how many boxes?</p>	<p>Share, share equally, one each, two each.....,group in pairs, threes, tens, equal groups of, divide, divided by, divided into, left, left over, how many...?, group, set, remainder</p>	<p>Number lines: $10 \div 2 = 5$</p>  <p>Arrays (including with remainders): $10 \div 4 =$</p> <pre> * * * * * * * * * * </pre>	<p>Children will begin to make connections between division and repeated subtraction and division as the inverse to multiplication. They may still use pictorial representations but these will take the form of arrays. In Year 3 children will also experience remainders and whether to round up or down.</p> <p>Resources Hoops for sharing Numicon for grouping. Arrays (link to multiplication), numberlines</p>	BM Steps 10 - 15

Stage	EXAMPLES	VOCABULARY	HOW IT WILL LOOK IN WRITTEN FORM	NOTES	Big Maths NC 2014
5	<p>There are 64 children in Year 4. How many teams of 6 can be made?</p> <p>I have 62 cakes and 7 boxes. Each box holds 8 cakes. How many boxes can I fill?</p>	<p>Share, share equally, one each, two each.....,group in pairs, threes, tens, equal groups of, divide, divided by, divided into, left, left over, how many...?, group, set, remainder, divisible by</p>	<p>Number lines</p> <p>Counting on - $72 \div 5 = 14 \text{ r } 2$</p>  <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p><i>Encourage children to make estimations first using their knowledge of table facts ie: $72 \div 5$ will have a remainder as 72 isn't a multiple of 5. It will be more than 10 as $10 \times 5 = 50$.</i></p> </div>	<p>The number line method should still be the preferred method.</p> <p>Calculations tend to involve TU \div U beyond tables facts.</p> <p>Resources Arrays Multiplication squares Number lines Numicon Place value equipment</p>	<p>BM Steps 16 - 23</p>

Stage	EXAMPLES	VOCABULARY	HOW IT WILL LOOK IN WRITTEN FORM	NOTES	Big Maths NC 2014
6	<p>A train ticket costs £7. I have £240. How many tickets can I buy?</p>	<p>Share, share equally, one each, two each.....group in pairs, threes, tens, equal groups of, divide, divided by, divided into, left, left over, how many...?, group, set, remainder, divisible by, quotient</p>	<p>Counting on - $92 \div 5 = 18 \text{ r } 2$</p>  <p>Use the number line to illustrate what is happening in the following 'chunking' method.</p> $\begin{array}{r} 18 \text{ r } 2 \\ 5 \overline{) 92} \\ \underline{50} \quad (10 \times 5) \\ 42 \\ \underline{40} \quad (8 \times 5) \\ 2 \end{array}$ <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p><i>Encourage children to make estimations first using their knowledge of table facts ie: $92 \div 5$ will have a remainder as 92 isn't a multiple of 5. The answer will be more than 10 but less than 20 because $10 \times 5 = 50$ and $20 \times 5 = 100$.</i></p> </div>	<p>Calculations of the form $TU \div U$ and $HTU \div U$.</p> <p><i>Commentary for moving from the informal to the formal should focus on the place value:</i></p> <p>Resources Place value resources (counters or Dienes)</p>	<p>BM Steps 24 - 27</p>

Stage	EXAMPLES	VOCABULARY	HOW IT WILL LOOK IN WRITTEN FORM	NOTES	Big Maths NC 2014
7	<p>It cost £165 for a group to visit the theatre. Tickets cost £15. how many people went to the theatre?</p>	<p>Share, share equally, one each, two each.....,group in pairs, threes, tens, equal groups of, divide, divided by, divided into, left, left over, how many...?, group, set, remainder, divisible by, quotient</p>	<p>Short division - HTU and ThHTU ÷ U</p> $\text{e.g. } 5 \overline{) 1942} \begin{array}{l} 38 \\ r2 \end{array}$ <p>Long Division HTU ÷ TU; ThHTU ÷ TU</p> $\text{e.g. } 17 \overline{) 256} \begin{array}{l} 13 \\ r15 \\ 170 \text{ (10} \times 17) \\ \underline{66} \\ 51 \text{ (3} \times 17) \\ \underline{15} \end{array}$ <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p><i>Encourage children to make estimations first using their knowledge of table facts ie: $256 \div 17$ - The answer will be more than 10 but less than 20 because $10 \times 17 = 170$ and $20 \times 17 = 340$.</i></p> </div>	<p>Children should work on the same approaches as in stage 6. Some children will now be working on calculations in the form of HTU ÷ TU. The children should also extend these ideas to working with simple decimals.</p> <p><i>Commentary for moving from the informal to the formal should focus on the place value and build from the number line and chunking method in stage 6. e.g. $192 \div 5$; if we think about the hundreds first, we haven't got more than 500 so we will look at the hundreds and the tens together. That gives us 19 tens which equals 190. We know that $30 \times 5 = 150$ so we can show the 30 lots by putting a 3 in the tens column above. We still have 4 tens left though so we can put these with the 2 units which gives us 42. This is 8 lots of 5 with 2 left over so we can show that by placing the 8 above the units and r2 at the side.</i></p>	<p>BM Steps 28 - 31</p>