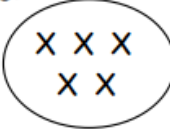
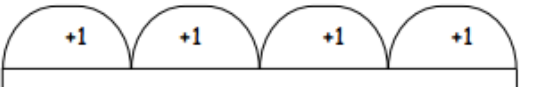

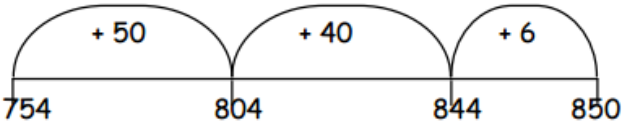


Abbey Primary School Written Calculation Policy-Addition

Stage	EXAMPLES	VOCABULARY	HOW IT WILL LOOK IN WRITTEN FORM	NOTES	Big Maths NC 2014
1	<p>There are 3 people on a bus. 1 more gets on. How many on the bus now?</p> <p>Count 4 cakes. Count 3 cakes. How many altogether?</p>	<p>count on, add, one more than, how many altogether? and</p>	<p>Mostly pictorial representations:</p> <div style="display: flex; align-items: center; gap: 20px;"> <div style="text-align: center;"> <p>X X X X</p> <p>X</p> </div> <div style="text-align: center;">  </div> </div> <p>Concrete apparatus models the addition of 3 objects and 2 objects by combining sets</p> <p>Possibly simple number tracks to count up on:</p> <div style="display: flex; align-items: center; gap: 10px;"> <div style="border: 1px solid black; padding: 2px;">1</div> <div style="border: 1px solid black; padding: 2px;">2</div> <div style="border: 1px solid black; padding: 2px;">3</div> <div style="border: 1px solid black; padding: 2px;">4</div> <div style="border: 1px solid black; padding: 2px;">5</div> <div style="border: 1px solid black; padding: 2px;">6</div> </div> <p>What is 1 more than 4?</p>	<p>Children will mainly use concrete apparatus and practical activities to add; merging sets and then counting the total. They will also count on from as number to find the total.</p> <p>Resources Counters, Small toys, Buttons, Cubes, Pegs, counters, Numicon, Fingers, Number tracks, Songs, whiteboards</p>	<p>BM Steps 1 - 5</p>
2	<p>How many are 3 and 5 altogether?</p> <p>What must I add to 4 to make 10?</p>	<p>count on, add, sum, total, how many altogether? and, how many more? score, +, addition, double, near double, one more, two more, ten more</p>	<p>Number tracks to count up on:</p> <div style="display: flex; align-items: center; gap: 10px;"> <div style="border: 1px solid black; padding: 2px;">1</div> <div style="border: 1px solid black; padding: 2px;">2</div> <div style="border: 1px solid black; padding: 2px;">3</div> <div style="border: 1px solid black; padding: 2px;">4</div> <div style="border: 1px solid black; padding: 2px;">5</div> <div style="border: 1px solid black; padding: 2px;">6</div> <div style="border: 1px solid black; padding: 2px;">7</div> <div style="border: 1px solid black; padding: 2px;">8</div> <div style="border: 1px solid black; padding: 2px;">9</div> </div> <p>What is 5 add 3?</p> <p>Number grids</p> <div style="display: flex; align-items: center; gap: 10px;"> <div style="border: 1px solid black; padding: 2px;">1</div> <div style="border: 1px solid black; padding: 2px;">2</div> <div style="border: 1px solid black; padding: 2px;">3</div> <div style="border: 1px solid black; padding: 2px;">4</div> <div style="margin-left: 5px;">..</div> </div> <div style="display: flex; align-items: center; gap: 10px; margin-top: 5px;"> <div style="border: 1px solid black; padding: 2px; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; padding: 2px; width: 20px; height: 20px;"></div> <div style="margin-left: 5px;">...</div> </div>	<p>Children will still be doing a lot of concrete work and may also still use pictorial representations. However, there should be a move towards number tracks, grids and cards as a visual resource.</p> <p>Resources Counters, Small toys, Buttons, Cubes, Pegs, counters, Numicon, coins, Fingers, Number tracks, Number lines, Number grids, whiteboards</p>	<p>BM Steps 6 - 8</p>

Stage	EXAMPLES	VOCABULARY	HOW IT WILL LOOK IN WRITTEN FORM	NOTES	Big Maths NC 2014
3	<p>What is the sum of 19 and 4?</p> <p>Add 60 to 30?</p>	<p>count on, add, sum, total, how many altogether? and, how many more?</p> <p>score, +, addition, double, near double, one more, two more, ten more, hundred more</p>	<p>Number lines: $19 + 4$ (in small jumps)</p>  <p>19 23</p> <p>Hundred grid $60 + 30$ - count 'down' the columns on a hundred grid.</p>	<p>Children are beginning to move on to using simple number lines which allow the children to record their working. These should include calculations where tens boundaries need to be crossed.</p> <p>Resources Concrete things if still required (as above) 100 grid (and beyond), Number lines, Number grids, Coins, Whiteboards, Place value counters, Dienes apparatus.</p>	<p>BM Steps 9 - 20</p>
4	<p>70 plus 50</p> <p>How many is 11 and 35 altogether?</p>	<p>count on, add, sum, total, how many altogether? and, how many more?</p> <p>score, +, addition, double, near double, one more, two more, ten more, hundred more</p>	<p>Partitioning $86 + 57$ $80 + 50 = 130$ $6 + 7 = 13$ $130 + 13 = 143$</p> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"> <p><i>Encourage children to make estimations ie $86 + 57$ $90 + 60 = 150$; $80 + 50 = 140$. My answer will be inbetween 140 and 150.</i></p> </div> <p>Number lines: $86 + 57$ (most or least significant first) (A hundred grid could be used to support this recording)</p>  <p>86 136 140 143</p>	<p>Children should continue to use the number line where needed. Support could be given with the use of 100 grid ie add 10s on then units by going down the columns and across. Children should experience adding the most and the least significant digit first. They should be carrying out the following calculations: TU + TU, HTU + TU then HTU + HTU. These should be done first without crossing any boundaries.</p> <p>Resources Number lines, Number grids, Coins, Whiteboards, Place value counters, Dienes apparatus.</p>	<p>BM Steps 21 - 27</p>

Stage	EXAMPLES	VOCABULARY	HOW IT WILL LOOK IN WRITTEN FORM	NOTES	Big Maths NC 2014
5	<p>What is the sum of 126 and 39?</p> <p>Increase 48 by 22.</p> <p>Add 69 to 374.</p>	<p>count on, add, sum, total, how many altogether? and, how many more? score, +, addition, double, near double, one more, two more, ten more, hundred more, increase</p>	<p>Partitioning As above - with 3-digit numbers. Introduce to column for recording:</p> <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;"> <p>Column: 754</p> $\begin{array}{r} 754 \\ + 96 \\ \hline 850 \end{array}$ </div> <div style="text-align: center;"> <p>Column: 754</p> $\begin{array}{r} 754 \\ + 96 \\ \hline 700 \\ 140 \\ 10 \\ \hline 850 \end{array}$ </div> </div> <p>Number lines (as above) and:</p> <p>754 + 96 (taking jumps in multiples of 10 or 100)</p>  <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p><i>Encourage children to make estimations ie 754 + 96 754 + 100 = 854; 754 + 90 = 844. My answer will be inbetween 844 and 854.</i></p> </div>	<p>Children should continue to use the horizontal number line - however, encourage use of visualisation of lines and grids.</p> <p>The children should still experience adding with both most and least significant digit first.</p> <p>They should be carrying the following types of calculation: HTU + TU and HTU + HTU.</p> <p>Calculations should involve crossing the tens, hundreds or both boundaries.</p> <p>Resources Number lines, Number grids, Coins, Whiteboards, Place value counters, Dienes apparatus.</p>	<p>BM Steps 28 - 30</p>

Stage	EXAMPLES	VOCABULARY	HOW IT WILL LOOK IN WRITTEN FORM	NOTES	Big Maths NC 2014
6	<p>Increase 190 by 37.</p> <p>What is the total of 229 and 39?</p> <p>Which 3 numbers could have a total of 450?</p>	<p>count on, add, sum, total, how many altogether? and, how many more? score, +, addition, double, near double, one more, two more, ten more, hundred more, increase</p>	<p>Column:</p> $ \begin{array}{r} 597 \\ + 475 \\ \hline 12 \\ 160 \\ \hline 900 \\ 1072 \end{array} $ <p style="text-align: right;">leading to</p> $ \begin{array}{r} 597 \\ + 475 \\ \hline 1072 \\ 11 \end{array} $ <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p><i>Encourage children to make estimations first ie $600 + 500 = 1100$; my answer will be around 1100.</i></p> </div>	<p>Children use the same column methods as those above. However children should now use the least significant digit first. They should be carrying the following types of calculation: HTU + HTU and ThHTU + ThHTU. The children should also extend these ideas to working with simple decimals.</p> <p>Resources Whiteboards, Place value counters, Dienes apparatus</p>	<p>BM Steps 28 - 30</p>

7	<p>Add 4250 to 3536?</p> <p>How much altogether is 855 and 622?</p> <p>Increase 250 by 420.</p>	<p>count on, add, sum, total, how many altogether? and, how many more? score, +, addition, double, near double, one more, two more, ten more, hundred more, increase</p>	<p>Column</p> $ \begin{array}{r} 7648 \\ + 1486 \\ \hline 14 \\ 120 \\ 1000 \\ 8000 \\ \hline 9134 \end{array} $ <p>leading to:</p> $ \begin{array}{r} 7648 \\ + 1486 \\ \hline 9134 \\ 11 \end{array} $ <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"> <p><i>Encourage estimation using rounding</i></p> </div>	<p>Children should use the same column methods as above continuing to use least significant digit first. Children should be working with ThHTU + ThHTU and decimals.</p>	<p>BM Steps 31 - 39</p>
Stage	EXAMPLES	VOCABULARY	HOW IT WILL LOOK IN WRITTEN FORM	NOTES	<p>Big Maths</p> <p>NC 2014</p>
8			<p>As above but extending into decimals (including those with mixed number of decimal places) and numbers 4+ digits.</p> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"> <p><i>Encourage children to make estimations first ie 26.7 + 3.89; my answer will be slightly less than 27 + 4 = 31 ie 30.th</i></p> </div>	<p>Children encouraged to use the compact method of decomposition. Children should be working with numbers with mixed numbers of digits etc 10ThThHTU + ThHTU; TU.t + U.th.</p>	<p>BM Steps 40 - 41</p>