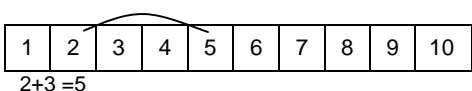
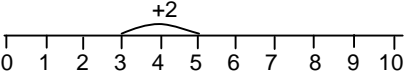
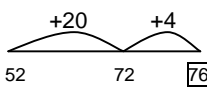
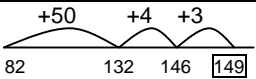
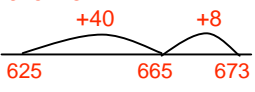
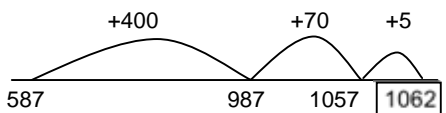


Progression in Maths – **Addition** - 2009
 St. Michael’s CE (C) Primary School.

Year	What will addition look like?	Notes
R	Practical, counting objects, reinforce ‘more than’ and combining sets. Teacher to model recording & pupil to record number sentences where appropriate.	<p><u>Primary Framework for literacy and mathematics page 94 and PSRN (foundation stage)</u></p>
1	a) Use of the number track- hopping and recording.  b) Use a number line to record $2+3 = 5$  (b) $3 + 12 = \square$ $\square + \triangle = 4$ (c) $5 + 3 + 1 = 9$	<p><u>Primary Framework for literacy and mathematics page 94</u> Understanding addition as: + combining sets to make a total + steps along a number line (counting on)</p> <ul style="list-style-type: none"> • Emphasis on mental calculations • Record simple mental additions in a number sentence using + and – signs • Use practical and informal written methods to support the addition of 1- digit numbers or a multiple of 10 to a 1-digit or 2 digit numbers.
2	(a) $52 + 24$  (b) $17 + 12 =$ $\begin{array}{r} 10 + 7 \\ 10 + 2 \\ \hline 20 + 9 \end{array}$ (c) $12 + 7 + 4 = \square$	<p><u>Primary Framework for literacy and mathematics page 94</u></p> <ul style="list-style-type: none"> • Emphasis on mental calculation • Continue to develop understanding of addition as : + combining sets to make a total + counting in steps along a number line • Adding zero leaves a number unchanged • Record mental additions in a number sentence using + and – • Use practical and informal written methods to add 2 –digit numbers • Use knowledge of number facts and operations to estimate and check answers

<p>3</p>	<p>a) $82 + 57$</p>  <p>Partition both numbers</p> <p>(b) $60 + 2$</p> $\begin{array}{r} 20 + 4 \\ 80 + 6 \\ \hline 80 + 6 \end{array}$ <p>(No bridging)</p> <p>(d) $67 + 83$</p> $\begin{array}{r} 67 \\ +24 \\ \hline 11 \\ 80 \\ \hline 91 \end{array} \quad \begin{array}{r} 83 \\ +42 \\ \hline 5 \\ 120 \\ \hline 125 \end{array}$ <p>(Vertical add units first)</p> <p>c) $67 + 24 = (60+20)+(7+4) = 80+11=91$ or $67+24=$ $60+20 = 80$ $7+4 = 11$ (Horizontal add tens first)</p> <p>and check answer</p>	<p>Primary Framework for literacy and mathematics page 94</p> <ul style="list-style-type: none"> Counting on in multiples of 100, 10 or 1 using a number line Leading on to vertical layout and understanding importance of lining up units/tens under tens etc HTU + TU, then HTU + HTU Cross 10s/100s barrier Add significant figures first if vertical Check for mental approach first before written method. Approximate, calculate & check it mate!
<p>4</p>	<p>(a) Number lines where appropriate</p> $625 + 48$  <p>(b) Expanded where appropriate – see Y3 (b)</p> <p>(c) $625 + 48$ $206 + 176$ (Vertical add units first)</p> $\begin{array}{r} 625 \\ + 48 \\ \hline 13 \\ 60 \\ \hline 600 \\ 673 \end{array} \quad \begin{array}{r} 206 \\ +176 \\ \hline 12 \\ 70 \\ \hline 300 \\ 382 \end{array}$ <p>(d) $625^* + 48$ $367^* + 85$</p> $\begin{array}{r} 625 \\ + 48 \\ \hline 673 \\ 1 \end{array} \quad \begin{array}{r} 367 \\ + 85 \\ \hline 452 \\ 11 \end{array}$	<p>Primary Framework for literacy and mathematics page 95</p> <ul style="list-style-type: none"> Consolidation from Year 3 work. Stress importance of columns and place value. HTU + TU, then HTU + HTU. Cross 10s, 100s boundary. Check for mental approach first before written method, through to Y6. Approximate, calculate & check it mate! Through to Y6 Use calculator as appropriate, including carrying out 1 and 2 step calculations and interpreting the display in the context of money <p>*Refer to the value of each digit</p>

<p>5</p>	<p>a) Number lines where appropriate</p>  <p>(b) Expanded where appropriate – see Y3 (b)</p> <p>(c) $587 + 475$ (d) $3587 + 675$ (e) $£ 6.72 + 8.56 + 2.30^*$</p> $\begin{array}{r} 587 \\ +475 \\ \hline 1062 \\ 11 \end{array} \quad \begin{array}{r} 3587 \\ + 675 \\ \hline 4262 \\ 111 \end{array} \quad \begin{array}{r} £ 6.72 \\ 8.56 \\ + 2.30^* \\ \hline £17.58 \\ 11 \end{array}$ <p>* Fill "empty" columns with zero</p> <p>and use number lines to check answer where appropriate</p>	<p>Primary Framework for literacy and mathematics page 95</p> <ul style="list-style-type: none"> Adding using least significant numbers first. HTU + HTU, then ThHTU + ThHTU. Lead on to schools' chosen standard written method. Double lines for answer. Extend to simple decimals Carry "1 ten or ten" not carry "1" etc. Use calculator to solve problems
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		(also involving decimals) as appropriate.
6	<p>a) Continue to use number lines appropriately i.e. in the context of time (b) Expanded where appropriate – see Y3 (b)</p> <p>(c) $7648 + 1486$ $\begin{array}{r} 7648 \\ + 1486 \\ \hline 9134 \\ 111 \end{array}$</p> <p>$124.9 + 7.25$ $\begin{array}{r} 124.90^* \\ + 7.25 \\ \hline 132.15 \\ 11 \end{array}$</p> <p>* Fill “empty” columns with zero</p>	<p><u>Primary Framework for literacy and mathematics</u> <u>page 95</u></p> <ul style="list-style-type: none"> • Ensure understanding of efficient written method. • Practice ThHTU + ThHTU then numbers with any number of digits. • Extend to more complex decimals, • Appropriate use of a calculator, including solving multi step problems