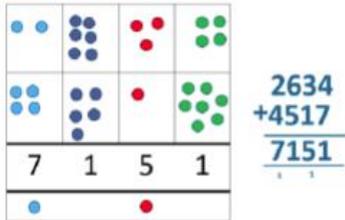


Year 5 and 6 Addition	
Year 5	Year 6
Mental strategies	
<p>Children should continue to count regularly, on and back, now including steps of powers of 10.</p> <p>The number line should continue to be used as an important image to support thinking, and the use of informal jottings should be encouraged where appropriate. Children should continue to partition numbers in different ways.</p> <p>They should be encouraged to choose from a range of strategies:</p> <ul style="list-style-type: none"> • Counting forwards and backwards in tenths and hundredths: $1.7 + 0.55$ • Reordering: $4.7 + 5.6 - 0.7$, $4.7 - 0.7 + 5.6 = 4 + 5.6$ • Partitioning: counting on or back - $540 + 280$, $540 + 200 + 80$ • Partitioning: bridging through multiples of 10: • Partitioning: compensating: $5.7 + 3.9$, $5.7 + 4.0 - 0.1$ • Partitioning: using 'near' double: $2.5 + 2.6$ is double 2.5 and add 0.1 or double 2.6 and subtract 0.1 • Partitioning: bridging through 60 to calculate a time interval: It is 11.45. How many hours and minutes is it to 15.20? • Using known facts and place value to find related facts. 	<p>Mental Strategies Consolidate previous years. Children should experiment with order of operations, investigating the effect of positioning the brackets in different places, e.g. $20 - 5 \times 3 = 5$; $(20 - 5) \times 3 = 45$</p>
Written methods	
<p>As year 4, progressing when understanding of the expanded method is secure, children will move on to the formal columnar method for whole numbers and decimal numbers as an efficient written algorithm.</p>	<p>As year 5, progressing to larger numbers, aiming for both conceptual understanding and procedural fluency with columnar method to be secured. Continue calculating with decimals, including those with different numbers of decimal places Use the bar model to show the relationship between the part, part, whole. When using the addition bar model: draw</p>

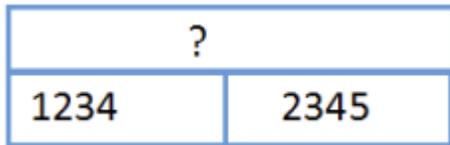
Compact written method

Extend to numbers with at least four digits.



Children should be able to make the choice to revert back to expanded methods if experiencing any difficulty.

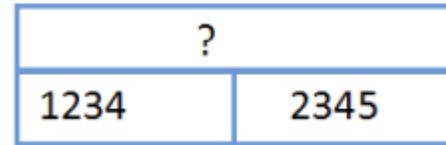
Use the bar model to show the relationship between the part, part, whole. When using the addition bar model: draw the part, then add the other part. Now draw the bar for the whole. By adding the two parts you find the whole.



Place value counters can be used alongside the columnar method to develop understanding of addition with decimal numbers.

$$\begin{array}{r} 172.83 \\ + 54.68 \\ \hline 227.51 \\ 111 \end{array}$$

the part, then add the other part. Now draw the bar for the whole. By adding the two parts you find the whole.



Problem Solving

Teachers should ensure that pupils have the opportunity to apply their knowledge in a variety of contexts and problems (exploring cross curricular links) to deepen their understanding