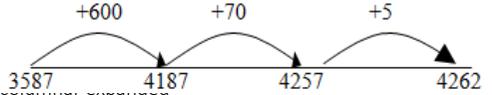


Addition

Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none"> add and subtract numbers mentally, including: <ul style="list-style-type: none"> a three-digit number and ones a three-digit number and tens a three-digit number and hundreds add numbers with up to three digits, using the efficient written methods of columnar addition. estimate the answer to a calculation and use inverse operations to check answers. solve problems, including missing number problems, using number facts, place value, and more complex addition. 	<ul style="list-style-type: none"> add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate. estimate and use inverse operations to check answers to a calculation. solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why. solve simple measure and money problems involving decimals to two decimal places. 	<ul style="list-style-type: none"> add whole numbers with more than 4 digits, including using efficient written methods (columnar addition and subtraction). add and subtract numbers mentally with increasingly large numbers. use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy. solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. 	<ul style="list-style-type: none"> solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. solve problems which require answers to be rounded to specified degrees of accuracy. solve problems involving number up to three decimal places. use their knowledge of the order of operations to carry out calculations involving the four operations (including the use of brackets).
<ul style="list-style-type: none"> Build on from mental methods; add a near multiple of 10 to a two-digit number e.g. $35+19$ is the same as $35 + 20 - 1$. Use place value manipulatives (Base 10 or place value counters) to add multiples of 100 to 3-digit numbers; to add a 1-digit number to a 3-digit number which crosses the ten and to add a 2-digit number to a 3-digit number. Use the expanded column method to add two 3-digit numbers. E.g. $287 + 466 = 753$ $ \begin{array}{r} 287 \\ + 466 \\ \hline 13 \\ 140 \\ \hline 600 \\ \hline 753 \end{array} $ <ul style="list-style-type: none"> Start to use the formal column method to add two 3-digit numbers. E.g. $287 + 466 = 753$ $ \begin{array}{r} 287 \\ + 466 \\ \hline 753 \\ 11 \end{array} $ <ul style="list-style-type: none"> Use manipulatives to support the concept of place value and 'carrying'. Use, apply these methods for solving one-step word problems with measures. 	<ul style="list-style-type: none"> Continue to practice mental methods such as adding the nearest multiple of 10, then adjust. Continue as in Year 2 and 3 but with appropriate numbers, e.g. $3408 + 179 = 3408 + 180 - 1$ Use an empty number line to count on, e.g. $3587 + 675 = 4262$  <ul style="list-style-type: none"> Use the formal column method to add 4-digit numbers, e.g. $7685 + 1349 = 9034$. $ \begin{array}{r} 7685 \\ + 1349 \\ \hline 9034 \\ 111 \end{array} $ <ul style="list-style-type: none"> Use manipulatives to support the concept of place value and 'carrying'. Begin to use column addition with decimals to two places in the context of money and measures. Solve two-step problems in contexts. 	<ul style="list-style-type: none"> Use mental methods (near doubles, round-then-adjust, bonds to 10, 100 and 1000) with integers up to four digits and one- or two-place decimals. Use rounding to check answers to additions. Use an empty number line to count on with decimals, least Significant digit first. E.g. $£35.27 + £15.62 = £50.89$  <ul style="list-style-type: none"> Use column addition to add numbers with more than 4-digits, e.g. $25,867 + 33,753 = 59,620$ $ \begin{array}{r} 25,867 \\ + 33,753 \\ \hline 59,620 \\ 111 \end{array} $ <ul style="list-style-type: none"> Extend use of column addition with decimals $ \begin{array}{r} 42.43 \\ + 02.70 \\ \hline 45.13 \\ 1 \end{array} $ <ul style="list-style-type: none"> Solve multi-step problems in context, choosing operations and suitable methods. E.g. Pens cost $£1.59$ and Pencils $£0.85$. If John buys a pen and a pencil how much change will he get from $£5.00$? 	<ul style="list-style-type: none"> Continue to use column addition with decimals to 3 decimal places, e.g. $14.824 + 16.013 = 30.837$ $ \begin{array}{r} 14.824 \\ + 16.013 \\ \hline 30.837 \\ 1 \end{array} $ <ul style="list-style-type: none"> Round answers to addition to a required degree of accuracy, e.g. give the answer to 2.d.p. $\rightarrow 30.84$ Continue to use column addition with a set of numbers involving mixed decimal places, using their understanding of zero as a place holder. E.g. $14.8 + 16.23 + 0.108 = 31.138$ $ \begin{array}{r} 14.800 \\ 0.108 \\ + 16.230 \\ \hline 31.138 \\ 11 \end{array} $ <ul style="list-style-type: none"> Explore the order of operations and using brackets; e.g. $2+1 \times 3 = 5$; $2 + (1 \times 3) = 5$ and $(2 + 1) \times 3 = 9$. Solve multi-step problems in context, deciding which operations and methods to use. E.g. A group of five friends worked together to complete a 10km relay. Each ran a different distance. If the first person ran 1.84km and the last person ran 2.9km, what distances could the other three friends have run?