



Progression in Number: Addition and Subtraction

	Number Bonds	Mental Calculations
R	<ul style="list-style-type: none">• know which pairs make a given number	
Y1	<ul style="list-style-type: none">• represent and use number bonds and related subtraction facts within 20	<ul style="list-style-type: none">• add and subtract one- digit and two-digit numbers to 20, including zero (This helps to establish addition and subtraction as related operations)• read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs (appears also in Written Methods)
Y2	<ul style="list-style-type: none">• recall and use addition and subtraction facts to 20 fluently, and derive and• use related facts up to 100	<ul style="list-style-type: none">• add and subtract numbers first using concrete objects, then pictorial representations, and mentally, including:<ul style="list-style-type: none">* a two-digit number and ones* a two-digit number and tens* two two-digit numbers* adding three one-digit numbers• show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot.
Y3		<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• show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot. (Consolidation from Year 2)
Y4		<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 (Consolidation from Year 3)
Y5		<ul style="list-style-type: none">• add and subtract numbers mentally with increasingly large numbers

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Y6		<ul style="list-style-type: none"> perform mental calculations, including with mixed operations and large numbers. use their knowledge of the order of operations to carry out calculations involving the four operations.
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	Written Methods	Inverse operations, estimating and checking answers	Problem Solving
R		<ul style="list-style-type: none"> inverse operation- partition a number of things into groups and recognise the groups can be recombined to make a total. 	
Y1	<ul style="list-style-type: none"> read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs (appears also in Mental Calculation) 		<ul style="list-style-type: none"> solve one-step problems that involve addition and subtraction, first using concrete objects and then pictorial representations, and missing number problems such as $7 = \square - 9$
Y2	<ul style="list-style-type: none"> Record addition and subtraction calculations as a number sentence. $2 + 4 = 6$ 	<ul style="list-style-type: none"> recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems. 	<ul style="list-style-type: none"> solve problems with addition and subtraction: <ul style="list-style-type: none"> first using concrete objects and then pictorial representations, including those involving numbers, quantities and measures applying their increasing knowledge of mental and written methods solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change (See Measurement)
Y3	<ul style="list-style-type: none"> add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction 	<ul style="list-style-type: none"> estimate the answer to a calculation and use inverse operations to check answers 	<ul style="list-style-type: none"> solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction including previous years learning.

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Y4	<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 	<ul style="list-style-type: none"> estimate and use inverse operations to check answers to a calculation 	<ul style="list-style-type: none"> solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why including previous years learning.
Y5	<ul style="list-style-type: none"> add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) 	<ul style="list-style-type: none"> use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy 	<ul style="list-style-type: none"> solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why including previous years learning.
Y6	<ul style="list-style-type: none"> add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) (Consolidation from Year 5) 	<ul style="list-style-type: none"> use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy. 	<ul style="list-style-type: none"> solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why including previous years learning. Solve problems involving addition, subtraction, multiplication and division