



# Number: Addition and Subtraction

NUMBER BONDS					
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
I know number bonds and related subtraction facts to 20.	I know how to use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100				
MENTAL CALCULATION					
I know how to add and subtract one-digit and two-digit numbers to 20, including zero	I know how to add and subtract numbers using concrete objects, pictorial representations, and mentally, including: <ul style="list-style-type: none"> <li>* a two-digit number and ones</li> <li>* a two-digit number and tens</li> <li>* two two-digit numbers</li> <li>* adding three one-digit numbers</li> </ul>	I know how to add and subtract numbers mentally, including: <ul style="list-style-type: none"> <li>* a three-digit number and ones</li> <li>* a three-digit number and tens</li> <li>* a three-digit number and hundreds</li> </ul>		I know how to add and subtract numbers mentally with increasingly large numbers	I know how to perform mental calculations, including with mixed operations and large numbers
I know how to read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs (appears also in Written Methods)	I know how to show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot				I know how to use my knowledge of the order of operations to carry out calculations involving the four operations



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WRITTEN METHODS					
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
I know how to read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs (appears also in Mental Calculation)		I know how to add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction	I know how to add and subtract numbers with up to 4 digits (2dp) using the formal written methods of columnar addition and subtraction where appropriate	I know how to add and subtract numbers with more than 4 digits (including decimals up to 3dp), including using formal written methods (columnar addition and subtraction)	
INVERSE OPERATIONS, ESTIMATING AND CHECKING ANSWERS					
	I know how to use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.	I know how to estimate the answer to a calculation and use inverse operations to check answers	I know how to estimate and use inverse operations to check answers to a calculation	I know how to use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy	I know how to use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy.



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PROBLEM SOLVING					
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
I know how to solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = \square - 9$	I know how to solve problems with addition and subtraction: <ul style="list-style-type: none"><li>* using concrete objects and pictorial representations, including those involving numbers, quantities and measures</li><li>* applying their increasing knowledge of mental and written methods</li></ul>	I know how to solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction	I know how to solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why	I know how to solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why	I know how to solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why
	<i>solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change (copied from Measurement)</i>				I know how to Solve problems involving addition, subtraction, multiplication and division