

# Number: Addition and Subtraction

| NUMBER BONDS   |  |   |        |   |  |
|--|--|---|--------|---|--|
| Year 1   | Year 2   | Year 3  | Year 4 | Year 5  | Year 6   |
| represent and use number bonds and related subtraction facts within 20   | recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100   |   |        |   |  |
| MENTAL CALCULATION   |  |   |        |   |  |
| add and subtract one-digit and two-digit numbers to 20, including zero   | 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> | 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> |        | add and subtract numbers mentally with increasingly large numbers | perform mental calculations, including with mixed operations and large numbers                         |
| read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs (appears also in Written Methods) | show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot   |   |        |   | use their 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  |
| read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs (appears also in Mental Calculation) |   | add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction | add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate | add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) |   |
| INVERSE OPERATIONS, ESTIMATING AND CHECKING ANSWERS   |   |   |  |  |   |
|   | recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems. | estimate the answer to a calculation and use inverse operations to check answers                                    | estimate and use inverse operations to check answers to a calculation  | use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy                       | 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   |
| solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = \square - 9$ | solve problems with addition and subtraction:<br>* using concrete objects and pictorial representations, including those involving numbers, quantities and measures<br>* applying their increasing knowledge of mental and written methods | solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction | solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why | solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why | 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>  |   |  |  |  |