



# 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 |



# Number: Addition and Subtraction

| 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<br>(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. |



# Number: Addition and Subtraction



| 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: <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> | 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>                                                                                                                             |                                                                                                                               |                                                                                                                    |                                                                                                                      | Solve problems involving addition, subtraction, multiplication and division                                          |

