Number - Addition and Subtraction

| Objectives | EYFS | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
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| Number Bonds |  | 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 | Using <br> quantities and objects, add and subtract two single-digit numbers and count on or back to find the answer | Add and subtract one-digit and twodigit numbers to 20 , including zero | Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: <br> - a two-digit number and ones <br> - a two-digit number and tens <br> - two two-digit numbers <br> - adding three one-digit numbers | Add and subtract numbers mentally, including: <br> - a three-digit number and ones <br> - a three-digit number and tens <br> - a three-digit number and hundreds |  | 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 | 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 |


|  |  | (Appears also in Written Methods) |  |  |  |  |  |
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| Written <br> Methods | Using <br> quantities and objects, add and subtract two single-digit numbers and count on or back to find the answer | 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. |
| Problem Solving | Solve problems, including doubling, halving and sharing. | 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 | solve problems, including <br> 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 |


|  |  |  | Applying their <br> increasing <br> knowledge of <br> mental and <br> written <br> methods |  |  |
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