Elburton Primary School

## Progression in Mathematics

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: <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 (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. |

## Elburton Primary School <br> Progression in Mathematics <br> 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: <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. |
|  | Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change (copied from Measurement). |  |  |  | Solve problems involving addition, subtraction, multiplication and division. |

