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| 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 (This helps to  establish addition and  subtraction as related  operations) | add and subtract numbers first using concrete objects, then pictorial representations, and mentally, including:   * a two-digit number and ones * a two-digit number and tens * two two-digit numbers * adding three one-digit   numbers | add and subtract numbers mentally, including:   * a three-digit number and ones * a three-digit number and tens * a three-digit number and hundreds | add and subtract numbers mentally, including:   * a three-digit number and ones * a three-digit number and tens * a three-digit number and hundreds   (Consolidation from Year 3) | 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 | show that addition of  two numbers can be  done in any order  (commutative) and  subtraction of one  number from another  cannot  (Consolidation from  Year 2) |  |  | 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) | Record addition and subtraction calculations as a number sentence.  2 + 4 = 6 | 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) | add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)  (Consolidation from Year 5) |
| **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, first using  concrete objects and  then pictorial  representations, and  missing number  problems such as  7 =  - 9 | solve problems with addition and subtraction:   * first using concrete objects and then pictorial representations, including those involving numbers, quantities and measures * 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 including  previous years learning. | solve addition and  subtraction two-step  problems in contexts,  deciding which  operations and methods  to use and why including  previous years learning. | solve addition and  subtraction multi-step  problems in contexts,  deciding which operations  and methods to use and  why including previous  years learning. | solve addition and  subtraction multi-step  problems in contexts,  deciding which operations  and methods to use and  why including previous  years learning. |
|  | *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 |