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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 factswithin 20 | recall and use addition and subtraction facts to 20 fluently, and derive anduse related facts up to 100 |  |  |  |  |
| **MENTAL CALCULATION** |
| add and subtract one-digit and two-digitnumbers to 20, includingzero (This helps toestablish addition andsubtraction as relatedoperations) | 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 numbersmentally with increasinglylarge numbers | perform mentalcalculations, including withmixed operations and largenumbers |
| read, write and interpretmathematical statementsinvolving addition (+),subtraction (-) and equals(=) signs(appears also in WrittenMethods) | show that addition of twonumbers can be done inany order (commutative)and subtraction of onenumber from anothercannot | show that addition oftwo numbers can bedone in any order(commutative) andsubtraction of onenumber from anothercannot(Consolidation fromYear 2) |  |  | use their knowledge of theorder of operations tocarry out calculationsinvolving the fouroperations |

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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 theinverse relationshipbetween addition andsubtraction and use this tocheck calculations andsolve missing numberproblems. | estimate the answer toa calculation and useinverse operations tocheck answers | estimate and use inverseoperations to checkanswers to a calculation | use rounding to checkanswers to calculations anddetermine, in the contextof a problem, levels ofaccuracy | use estimation to checkanswers to calculations anddetermine, in the contextof a problem, levels ofaccuracy. |

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| **PROBLEM SOLVING** |
| **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Year 5** | **Year 6** |
| solve one-step problemsthat involve addition andsubtraction, first usingconcrete objects andthen pictorialrepresentations, andmissing numberproblems such as7 =  - 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 missingnumber problems, usingnumber facts, placevalue, and morecomplex addition andsubtraction includingprevious years learning. | solve addition andsubtraction two-stepproblems in contexts,deciding whichoperations and methodsto use and why includingprevious years learning. | solve addition andsubtraction multi-stepproblems in contexts,deciding which operationsand methods to use andwhy including previousyears learning. | solve addition andsubtraction multi-stepproblems in contexts,deciding which operationsand methods to use andwhy including previousyears 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 involvingaddition, subtraction,multiplication and division |