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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Addition and Subtraction | | | | | | | | | | |
| Nursery | Reception | Early Learning Goal | Year 1 | Year 2 | | Year 3 | | Year 4 | Year 5 | Year 6 |
|  |  |  | Number bonds | | | | |  |  |  |
|  | Explore the composition of numbers to 10 Automatically recall number bonds for numbers 0-10  Begin to understand the operations of addition and subtraction and use associated vocabulary. Begin to understand mathematical symbols associated with addition and subtraction | Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some numbers bonds to 10 including double facts. | 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 | | | | | | | | | | |
| Fast recognition of up to 3 objects, without having to count them (subitising) | Subitise Automatically recall number bonds for numbers 0 – 10  To understand and recall doubling facts up to 10. | Subitise up to 5 Automatically recall. Number bonds up to 5…and some number bonds up to 10 including double facts. | 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: \* 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: 1. a three-digit number and ones 2. a three-digit number and tens 3. 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 |
| Written methods | | | | | | | | | | |
| Show finger numbers up to 5 Experiment with their own symbols and marks as well as numerals | To become familiar with and understand mathematical symbols linked to addition and subtraction. To begin to represent mathematical sentences with appropriate symbols |  | read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs (Objective also shown 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 |  |