Through practical activities in meaningful contexts and informal written methods.

- Fluent recall of bonds to 20 and within 20.
- Derive and use related facts up to 100.
- Addition of money up to $£ 1$.

- Add numbers using concrete


- Show that addition of two numbers can be done in any order (commutative).
- Recognise and use the inverse relationship between addition and subtraction.
- Progressing to partitioned columnar method (in preparation for year 3).


National Curriculum requirements:
(using concrete objects, pictorial representations and mentally)
Add 2 digit numbers and ones.
Add 2 digit number and tens.
Add two 2 digit numbers.
Add three 1 digit numbers.

Through practical and meaningful contexts.

- Fluent recall of bonds to 20 and within 20.
- Derive and use related facts up to 100
e.g. $10-7=3$ so $100-70=30$.
- Counting back by partitioning second number. Subtract the ones first to be in line with columnar subtraction.
E.g. 46-18 46-10-8

- Find the difference by counting up !

28 hen the difference is small).
$23-18=5$


- Recognise and use the inverse relationship between addition and subtraction
- Show that subtraction is not commutative (done in any order)
- Progressing to the partitioned columnar method in preparation for year 3
- Subtraction of money, including change.


## National Curriculum requirements:

(using concrete objects, pictorial representations and mentally)
Subtract 2 digit numbers and ones.
Subtract 2 digit number and tens.
Subtract two 2 digit numbers.
Subtract three 1 digit numbers.

Through practical activities and meaningful contexts using concrete objects, pictorial representations and arrays. Double numbers (by partitioning and recombining) $17+17$.


Understand multiplication as repeated addition/groups/lots.
Read arrays.

$$
2 \times 4 \text { (2, } 4 \text { times) }
$$

- Repeated addition on a number line.

```
2+2+2+2 (4 groups of 2, 2 four times, 2 x 4)
```


$4+4$ (2 groups of 4,4 two times, $4 \times 2$ )


- Know the multiplication tables for 2,5 and 10.
- Calculate mathematical statements within the multiplication tables using the multiplication ( $x$ ) and equals (=) signs.
- Show that the multiplication of two numbers can be done in any order (commutative).

Video clips: Teaching for understanding of multiplication facts

## Practical multiplication and the commutative law

National Curriculum requirements:
Solve problems involving multiplication using materials, arrays, mental methods and multiplication facts.

Key Stage 1 - Division

|  | Y2 |
| :--- | :--- |

Through practical activities in meaningful contexts.

- Recall and use division facts for 2, 5 and 10 times tables.
- Continue to use division as sharing.
- Division as grouping.

- 15 children get into teams of 5 to play a game. How many teams are there?

- Understand ' $\div 2$ ' as 'half of'.
- Understand that division is not commutative.
- Recognise relationship between $x$ and $\div$
- Record using division ( $\div$ ) and equals (=) signs.
- Use number lines to answer questions such as $20 \div 2=$
 1111111111111111111111


## National Curriculum requirements:

$\left.\begin{array}{l}20 \\ 18 \\ 16 \\ 14 \\ 12 \\ 10 \\ 8 \\ 6 \\ 4 \\ 2 \\ 0\end{array}\right\}$

Solve problems involving division using materials, mental methods and division facts.

