Key Stage 1 – Addition

Y1	Y2
Through practical activities in meaningful contexts and informal written methods.	Through practical activities in meaningful contexts and informal written methods.

Y1

Through practical activities in meaningful contexts and informal written methods.

- Recall number bonds to 20 and within 20.
- Pictures and Marks – 1 more / 2 more.
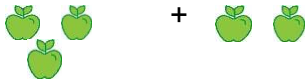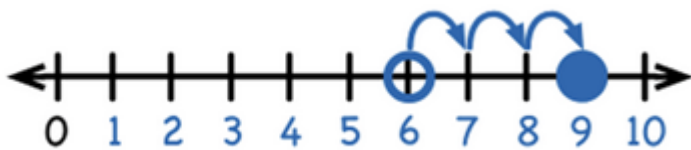 There are 3 cars in the garage. 1 more came along.

$$3 \quad + \quad 1 \quad = 4 \qquad 4 + 1 = 5$$

Terry has 3 apples and Tony has 2 apples. How many altogether?

$$+$$

- Number lines to 20.

$$6+3=9$$

- Derive related facts to 20.
  $$\square = 5 + 4$$
  $$5 + 4 = \square$$
  $$\square + 4 = 9$$
  $$\square + \square = 9$$
- Money and addition up to 20p.

- Read, write and interpret mathematical statement involving addition (+) and equals (=).

Video clips:
Using a range of equipment and strategies to reinforce addition statements

National Curriculum requirements:
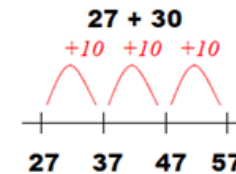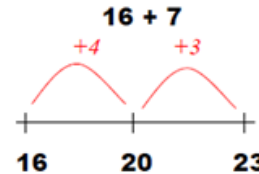Add 1 digit and 2 digit numbers to 20, including 0.

Y2

Through practical activities in meaningful contexts and informal written methods.

- Fluent recall of bonds to 20 and within 20.
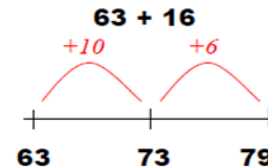
- Derive and use related facts up to 100.

- Addition of money up to £1.

- Add numbers using concrete objects, pictorial representations and mentally.

$$16 + 7 \qquad 27 + 30$$
$$+4 \quad +3 \qquad +10 \quad +10 \quad +10$$
$$16 \quad 20 \quad 23 \qquad 27 \quad 37 \quad 47 \quad 57$$

- 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).

$$63 + 16$$
$$+10 \quad +6$$
$$63 \quad 73 \quad 79$$

$$\begin{array}{r} 2\ 0 + 3 \\ +\ 3\ 0 + 4 \\ \hline 5\ 0 + 7 \\ = 5\ 7 \end{array}$$

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.

Key Stage 2 – Addition

Y3	Y4
• Continue with partitioned columnar method. • Introduce expanded columnar addition.	• Continue with columnar addition.

Y3

```
  H   T   O
    2   3   6
+       7   3
            9
    1   0   0
    2   0   0
    3   0   9
```

Progressing to the compact columnar method.

T O	H T O	T O	H T O	T O	H T O
2 3	3 1 5	9 4	5 6 1	4 7	2 3 7
+ 4 2	+ 6 2 4	+ 7 3	+ 7 1 8	+ 2 5	+ 5 1 6
6 5	9 3 9	1 6 7	1 2 7 9	7 2	7 5 3
				1	1

• Add money using both £ and pence in practical contexts.

Video clip:
Demonstration of expanded 3 digit columnar addition

National Curriculum requirements:
Add numbers with up to 3 digits, using the formal written method of columnar addition.

Y4

H T O	H T O	Th H T O
3 7 1	3 7 6	2 3 8 8
+ 4 8 5	+ 4 8 5	+ 1 1 2 4
8 5 6	8 6 1	3 5 1 2
1	1 1	1 1

• Estimate and use inverse operations to check answers to a calculation.

• Add money using both £ and pence in practical contexts.

National Curriculum requirements:
Add numbers with up to 4 digits, using the formal written method of columnar addition.

Key Stage 2 – Addition

Y5	Y6
• Continue to use columnar addition, adding numbers with more than 4 digits.	• Add several numbers of increasing complexity using columnar addition.

Y5

```
    3   2 8 7 9
+   3   5 9 8 7
    6   8 8 6 6
```

• Addition of money and decimals.

```
  £ 2 3 · 5 9
+ £  7 · 5 5
  £ 3 1 · 1 4
```

```
  1 9 · 0 1
      3 · 6 5
+   0 · 7 0
  2 3 · 3 6
```

Y6

```
  2 3 · 3 6 1
      9 · 0 8 0
    5 9 · 7 7 0
+     1 · 3 0 0
    9 3 · 5 1 1
    2 1     2
```

```
    8 1,0 5 9
      3,6 6 8
    1 5,3 0 1
+   2 0,5 5 1
  1 2 0,5 7 9
```

National Curriculum requirements:
Add whole numbers with more than 4 digits, using the formal written method of columnar addition.

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Add whole numbers with more than 4 digits, using the formal written method of columnar addition.