Year Three Addition Objectives:

o Add numbers with up to three digits, using formal written method of columnar addition

NB Ensure that children are confident with the methods outlined in the previous year's guidance before moving on.
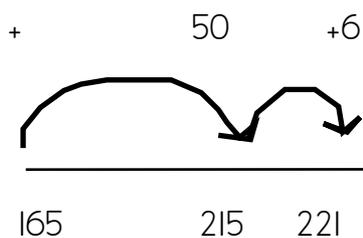
Further develop the use of an empty number line, with calculations that bridge 100. (Use a 200 grid to support bridging 10 and 100.)

84 + 43 = 127
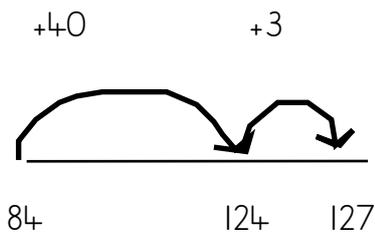
Use the same principal for adding 2 digit and 3 digit numbers.

165 + 56 = 221

Develop partitioning method further with calculations that bridge 100. (2 and 3 digit numbers)

78 + 53 = 70 + 8 + 50 + 3

so 70 + 50 = 120

    8 + 3 = 11

    120 + 11 = 131

78 + 53 = 131

Introduce expanded written method with calculation presented both horizontally and vertically (in columns).

Begin with calculations that do no bridge 10.

53 + 36 = 89

$$50 + 3$$
$$+30 + 6$$
$$80 + 9 = 89$$

Then move onto...

53

+ 36

9 (3+6)

80 (50+30)

89

'Write the number sentence for the units calculation. Then answer.
Write the number sentences for the tens calculation. Then answer.
Add the 2 answers together and write below.' (in preparation for formal written method.)

This will lead into the formal written method for addition:

53

+ 36

89

Use language of place value to ensure understanding. 'Three add six equal nine. Write nine in the units column. 50 add 30 equals 80. Write 80 in the tens column.'

NB Informal/mental methods would be more appropriate for numbers of this size, but use two-digit numbers when introducing the columnar method.

When calculations bridge 10 or 100, begin be revisiting expanded written method as shown above.

e.g. 68 + 24 = 92   and   76 + 47 = 123

When children are ready and are confident with the expanded written methods, introduce them to formal written method for addition with calculations that bridge 10 and 100.

68 + 24 = 92

```
  68
+ 24
  9 2
  |
```

Use the language of place value to ensure understanding.
'8 add 4 equals 12. Write 2 in the units column and carry one 10 across into the tens column. Add 60, 20 and the 10 we carried over from the units column and write 9 (90) in the tens column.'

76 + 47 = 123

```
  76
+ 47
 1 2 3
 |  |
```

Use language of place value to ensure understanding.
'6 add 7 equals 13. Write 3 in the units column and carry one 10 across into the tens column. Add 70, 40 and 10 we carried across before equals 120. Write 2 (20) in the tens column and carry 10 across into the hundreds column. Write 1 (100) into the hundreds column.

Once children are confident with this, move onto 3 digit numbers plus two digit numbers.

<u>Addition - Year Four</u>

<u>Year Four Addition Objectives:</u>

o Add numbers with up to 4 digits using the formal written method of columnar addition where appropriate.

NB Ensure that children are confident with the methods outlined in the previous year's guidance before moving on.

Continue to teach the use of empty number lines with three and four digit numbers, as appropriate.

Further develop the formal written method of addition, with three-digit numbers.

Revisit the expanded method first, if necessary:

176 + 147 = 323

```
  1 7 6
+ 1 4 7
    1 3    (7 + 6)
  1 1 0    (70 + 40)
  2 0 0    (100 + 100)
  3 2 3
```

Use the language of place value to ensure understanding:
'Seven add six equals 13. Write three in the units column and 'carry' one across into the tens column (10). 40 add 70 and the ten that we carried equals 120. Write 2 in the tens column (20) and 'carry' 1 across into the hundreds column (100). 100 add 100 and the 100 that has been carried equals 300. Write 3 in the hundreds column (300).

Then this will lead into the formal written method...

176 + 147 = 323

```
  1 4 7
+ 1 7 6
  3 2 3
   1 1
```

The digits that have been 'carried' should be recorded under the correct column. Move onto four digit calculation using the formal written method then introduce decimals in the context of money.