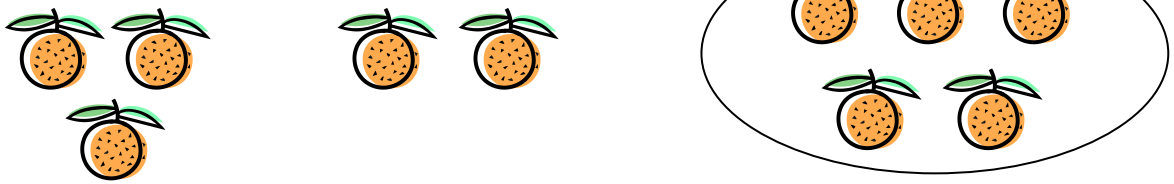
**Examples**
Count 3 cakes. Count 4 cakes. How many altogether?
I've got 2 red pens and 1 blue pen. How many altogether?
Start at 4 and count on 3.
There are 3 people on a bus. 1 more gets on. How many on the bus now?

**Vocabulary**
count on, add, one more than, how many altogether? and

## Reception

Begin to use pictorial representations



Concrete apparatus models the addition of 3 objects and 2 objects by combining sets

Possibly **simple number tracks** to count up on:

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|

**What is 1 more than 4?**

**Notes**
Children will mainly use concrete apparatus and practical activities to add; merging sets and then counting the total. They will also count on from a number to find the total

**Apparatus**
counters
Link to Numicon and possibly Education City
0-100 number lines
Multilink

**Examples**
How many are 3 and 5 altogether?
The plant was 5cm tall but it has grown another 3cm. How tall is it now?
4 and 6 more makes?
There are 50 people on the bus, 16 more get on, how many altogether?

**Vocabulary**
count on, add, sum, total, how many altogether? and, how many more? score, +, addition, double, near double, one more, two more, ten more

## Year 1

**Number tracks** to count up on:

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|

What is 5 add 3?

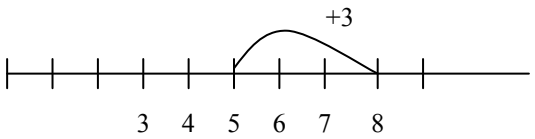
**Number grids**

| 1 | 2 | 3 | 4 | ... |
|---|---|---|---|---|
| | | | | ... |

Filling in **missing boxes**:

5 + 3= ☐

(recording number statements)




**Notes**
At this stage the children will still be doing a lot of concrete work and may also still use pictorial representations. However, there should be a move towards number tracks, grids and cards as a visual resource
Children should be encouraged first to know & work out number facts 1-10

**Apparatus**
Numicon
0-100 number lines
Cuisenaire rods, numbered number lines, Stern
Multilink

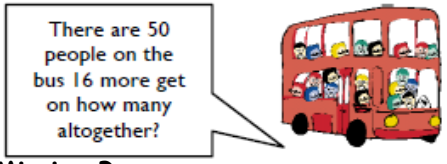
**Examples**
What is the sum of 19 and 4?
Add 60 to 30?
Increase 40 by 20.
The chocolate bar was 12p last week, but today the price went up by 3p. What is the price now?

**Vocabulary**
count on, add, sum, total, how many altogether? and, how many more? score, +, addition, double, near double, one more, two more, ten more, hundred more

# Year 2

## Calculation Strategies

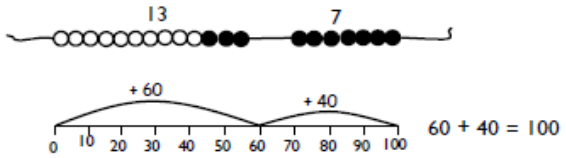
**Number Stories**



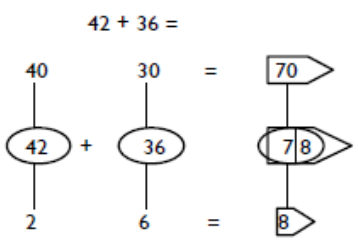

**Missing Boxes**

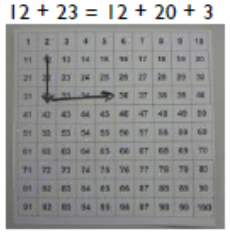
☐ 12 + =20

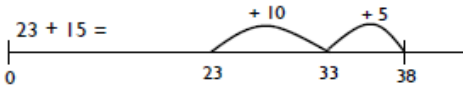
**Number bonds**
Use knowledge of number bonds to 10 to help with bonds to 20 and multiples of 10 to 100




**Addition as partitioning and recombining:**




**Notes**
Year 2 will still use many ideas from Year 1 but should begin to move on to using simple number lines which allow the children to record their working. These should include calculations where tens boundaries need to be crossed.

**Apparatus**
Numicon
0-100 number lines
Cuisenaire rods,
numbered number lines,
blank number lines, Dienes apparatus
Multilink

**Examples**
70 plus 50
How many is 11 and 35 altogether?
Lunch break is 30 minutes. If the lunch break time is increased by 12 minutes, how long is the new lunch break?

**Vocabulary**
count on, add, sum, total, how many altogether? and, how many more? score, +, addition, double, near double, one more, two more, ten more, hundred more

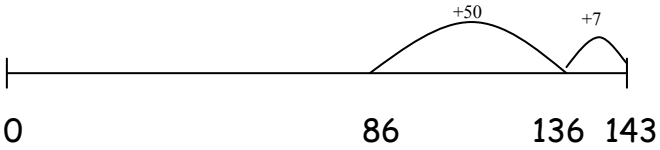
# Year 3

## Missing Boxes:

13 + ☐ = 20

## Number lines:

86 + 57 (most or least significant first)




## Column:

86
+ 57
13
130
143

**Notes**
In Year 3 children should continue to use the horizontal number line and introduce the expanded column method. Children should add the least significant digit first. They should be carrying out the following calculations: TU+TU, HTU+TU then HTU+HTU. These should be done first without crossing any boundaries

**Apparatus**
Numicon
0-100 number lines
Cuisenaire rods,
numbered number lines,
blank number lines, Dienes apparatus
Multilink

**Examples**

What is the sum of 26 and 39?
add 69 to 74
Increase 48 by 22
Bill earns £120. His boss gives him a pay rise of £35. What does Bill now earn?

**Vocabulary**

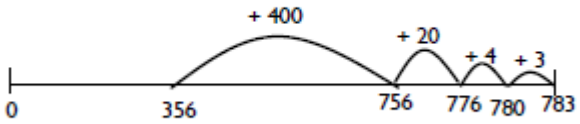
count on, add, sum, total, how many altogether? and, how many more? score, +, addition, double, near double, one more, two more, ten more, hundred more, increase

# Year 4

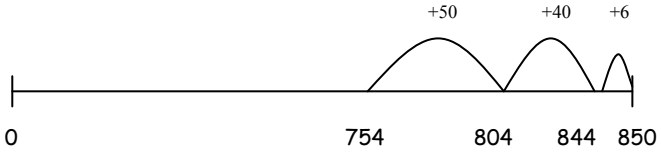
**Number lines** (as year 3) and:

**Addition: partitioning one number**

356 + 427




754 + 96 (taking jumps in multiples of 10 or 100)




**Column:**

754
96
10
140
700
850

**Notes**

Children in Yr 4 should continue to use the horizontal number line however, encourage use of visualisation of lines and grids. The children should still add least significant digit first but should make use of the rounding and adjusting method in both columns and on number lines. They should be carrying our the following types of calculations: HTU+TU & HTU+HTU Calculations should involve crossing the tens, hundreds or both boundaries.

**Apparatus**

Numicon
0-100 number lines
Cuisenaire rods
blank number lines, Dienes apparatus
Multilink

**Examples**

What is the total of 229 and 39?
Which 3 numbers could have a total of 450?
Increase 190 by 37

**Vocabulary**

count on, add, sum, total, how many altogether? and, how many more? score, +, addition, double, near double, one more, two more, ten more, hundred more, increase

# Year 5

**Column** (including rounding and adjusting) leading to:

```
 597
+475
  12
 160
 900
1072
```

```
 597
+ 475
 1072
   11
```

**Extend to 1 place decimals**

```
 72.5
+54.6
------
 127.1
```

**Extend to 2 place decimals**

```
 £ 73.42
+£ 84.73
--------
 £158.15
```

**Notes**

Children in Yr 5 use the same column method as those in Yr4 (including rounding and adjusting method), using the least significant digit first. Children should be working with ThHTU+ThHTU The children should also extend these ideas to working with simple decimals.

**Apparatus**

Numicon
0-100 number lines
Cuisenaire rods
blank number lines, Dienes apparatus
Multilink

**Examples**
Add 4250 to 3536?
How much altogether is 855 and 622?
Increase 250 by 420.

**Vocabulary**
count on, add, sum, total, how many altogether? and, how many more? score, +, addition, double, near double, one more, two more, ten more, hundred more, increase

# Year 6

**Column** (including rounding and adjusting) leading to:

```
 7648        7648
+1486       +1486
   14         9134
  120           11
 1000
 8000
 9134
```

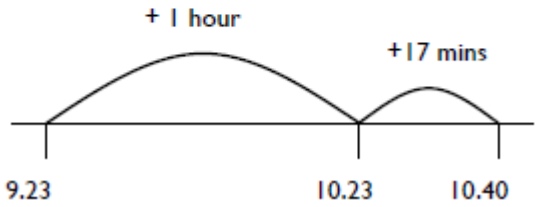
**Compact method**

```
  3481.9
    26.85
+    0.71
-------
  3509.46
  1 2
```

= 3509.46

**Addition with time: Numberline method**

The train leaves at 9.23 and the journey takes 1 hour 17 minutes. What time does it arrive?




**Notes**
Children in Yr 6 should use the same column methods as those in Yr 5 continuing to use least significant digit first. Children should be working with ThHTU+ThHTU. The children should also extend these ideas to working with decimals.

**Apparatus**
Numicon
0-100 number lines
Cuisenaire rods
blank number lines, Dienes apparatus
Multilink