Willow Lane Progression in Written Addition

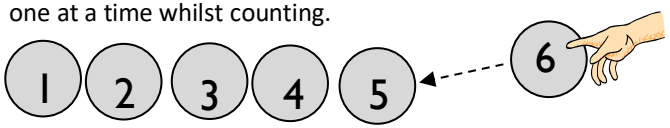
Reception

Children are taught that addition is the combining of two or more amounts. Children are encouraged to develop a mental image of the size of numbers. They learn to think about addition as combining amounts in practical, real life situations.

Counting all method.

4 + 2 count out four counters and count out two counters.

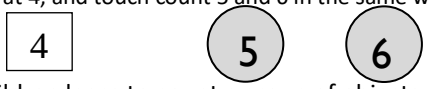
To find how many altogether, touch and drag them into a line one at a time whilst counting.



By touch counting and dragging, children keep track of what they have already counted so they don't count the same item twice.

Counting on method.

4 + 2, count out the two groups of counters as before then cover up the larger group with a cloth. Place a digit card on top of the cloth to remind the children of the number underneath. They can then start their count at 4, and touch count 5 and 6 in the same way as before,



Finally, children learn to count a group of objects without touching them.

Those who are ready may record their own calculations.

Year 1

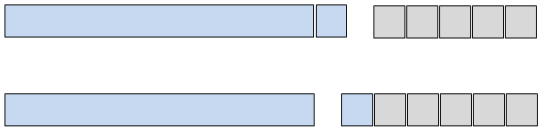
Counting on using Base 10 equipment

Children move on to using Base 10 equipment to support their developing understanding of addition.

11 + 5 = 16

11 cubes are lined up (1 ten and 1 unit).

5 cubes are added to the line of 11 giving a total of 16.



Year 2

Drawing and counting Base 10 equipment

Children continue to use the Base 10 equipment to support their calculations, including exchanging 10 units for 1 ten when the total of the units is 10 or more. They will record their own drawings of the Base 10 equipment, using lines for 10 rods and crosses for the unit blocks.

34 + 23 = ?

The units are added first 4 + 3 = 7

The tens are added next 30 + 20 = 50

Both answers are put together 50 + 7 = 57

(Children just draw the rods and crosses and write the answer.)

28 + 36 = ?

The units are added first with ten units exchanged for 1 ten. (A line is drawn through the units exchanged and a ten is drawn in the tens column). There are then 4 units.

The tens are then added, including the exchanged ten. 60

Both answers are put together. 60 + 4 = 64

Year 3

Expanded column addition

Children learn to add least significant digits (ie units) first.

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  65
+ 27
  12 (5 + 7)
  80 (60 + 20)
  92
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 675
+ 48
  13 (5 + 8)
 110 (70 + 40)
 600 (600 + 0)
 723
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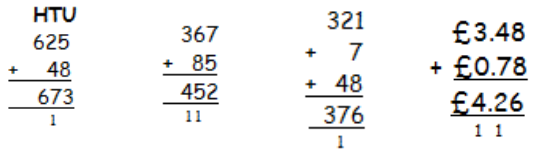
Teachers continue to use Base 10 to model calculations as needed.

Year 4/5/6

Column addition



The example top left would be 'said' as follows:

5 units + 8 units = 13, put 3 down and carry the 10

2 tens + 4 tens + 1 ten that was carried over = 7 tens, we write that 7 in the tens column.

6 hundred + 0 = 600, so we write 6 in the hundreds column.

Children will be expected to use this method for adding numbers with more than 3 digits, numbers involving decimals and adding any number of amounts together.