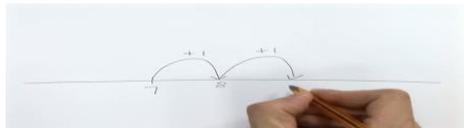


Year 2

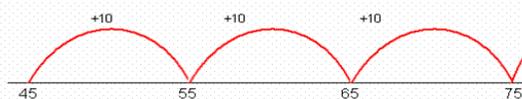
Addition

Using an empty number line within 100:

Children should be taught to count on in ones (or in other small steps) to show answers to additions where only a small number (less than 10) is being added:



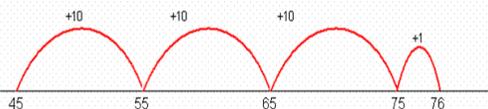
This should then progress to counting in tens:



Use in conjunction with a **100 square** to show jumps of tens (as being directly below).

$45+31=76$

“Put the biggest number first (45) then partition the smaller number ($31=30+1$) and count on:



Use in conjunction with a **100 square** to show jumps of tens and ones (as being directly below then directly to the right).

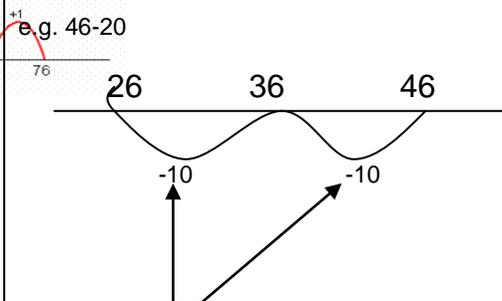
Consolidate/introduce bridging through ten (as explained in year 1).

If children are confident, use more efficient jumps which take account of number bonds within ten, e.g. for $27+15$: $27+10+3+2$ (because partitioning

Subtraction

Children should be taught to count back when **subtracting a one digit** number. This may be with concrete objects, progressing to a number line, then mentally. When ready, children may subtract through rounding and adjusting, e.g. subtract 9 by subtracting 10 then adding 1; subtract 8 by subtracting 10 then adding 2.

When **subtracting a tens number**, use no. square to show how the unit doesn't change and they move directly above for the number to get ten smaller. This can then be transferred on an empty number line. **Counting back** is to be done on the bottom of a number line:



The tens can be combined once confident so they just make one more efficient jump.

This method can then be used when taking away tens and units, always taking the tens away first:

For $35-16$, begin at 35, jump back 10 then jump back 6 by counting in ones. As they get more confident, they should use their number bonds to enable them to bridge, so take away 5 to get to 30, then 1 more to get to 29.

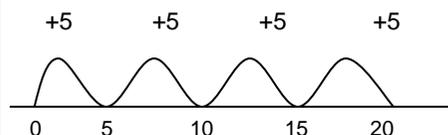
*Children may need a labelled number line from 1-30 to tackle subtraction before moving on to a blank, but the blank should be introduced as soon as possible to encourage independent thinking.

Multiplication

Children should be taught what the x sign means and use the strategies below to answer number sentences such as $4 \times 5 =$

When being taught that multiplication is 'lots of', children should be taught how to use **repeated addition** and **arrays** simultaneously so they see the link between the two operations.

E.g. 4×5 :



Could also be shown as 5 jumps of 4!

Corresponding Array:

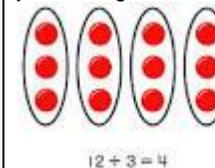


Show that like addition, multiplication is **commutative** (can be done in any order).

Any able children ready for a more formal method of recording can begin to access the year 3 curriculum.

Division

Children need to be taught that division is not just sharing; it can also mean grouping.



The above image represents how many groups of 3 make 12, but also how many groups of 4 make 12 when ringed horizontally. This should begin with movable objects to physically group then extend to pictorial recordings. The next step is to use a number line to work out the answer through counting on in steps as shown below. This could begin on a numbered line, then once confident, a blank number line could be introduced:

