Key Stage 1 Maths information for parents

Counting

In year 1:

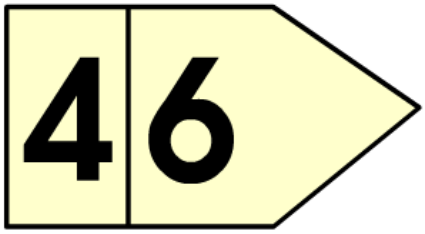
*Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number
*Count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens

In year 2:
*Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward

It is also important to be able to count in 10s and then in 1s

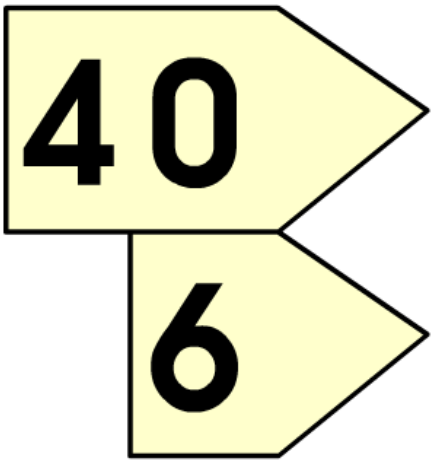
Place Value

In year 2, there is a lot of emphasis placed on what each digit in a number means. Arrow cards are a great way to introduce this.



TO

46 = 40 + 6 or 6 + 40 = 46.It also means that you can work out subtraction facts



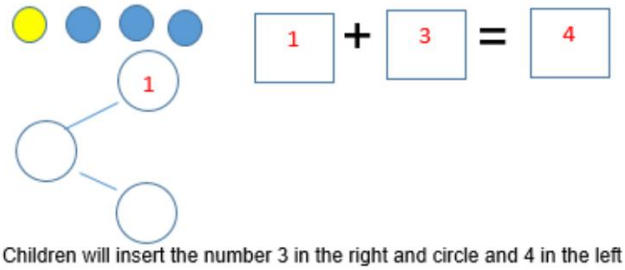
46 – 40 = 6

46 – 6 = 40

Addition Representations of number

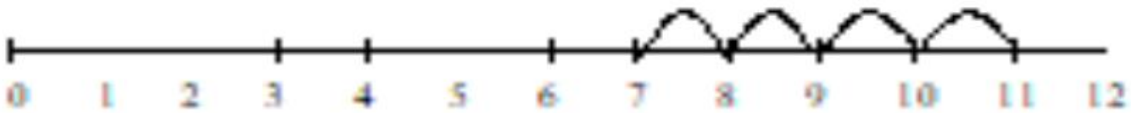
In year 1, addition builds on the work done in Reception by using lots of practical equipment and visual resources.

1 yellow counter and 3 blue counters



Children will insert the number 3 in the right and circle and 4 in the left hand circle

In year 1, a number line is also used to help consolidate the concept of addition.

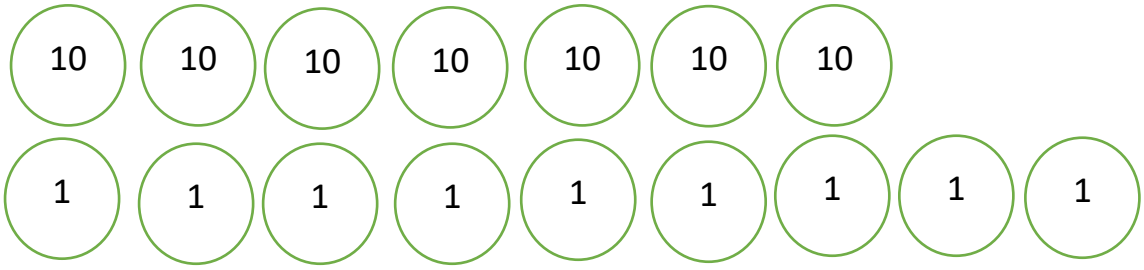


In year 2, we move onto adding two, two digit numbers using partitioning.

T O TO

32 + 47 = 79

Draw out the tens from both numbers, then the ones underneath. Then count up the total



For missing numbers put the smaller number in your head and count on, using your fingers, until you get to the bigger number.

Subtraction

Subtraction is initially taught as ‘taking away’. Pictures can be used to help the children with this.

6 – 1 = 5

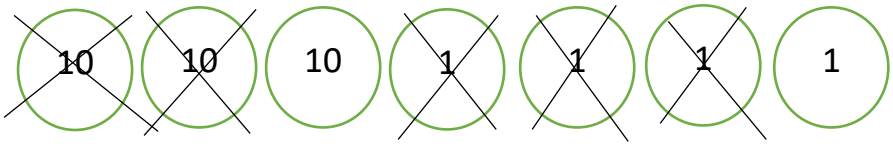
This could also be shown on a number line.

In year 2, the children are taught to subtract a two digit number from a 2 digit number.

TO TO

34 – 23 =

Draw the tens and ones for the BIGGEST NUMBER ONLY.



Then cross out the tens and ones from the smaller number

Count up what you have left to find the answer – here then answer is 11.

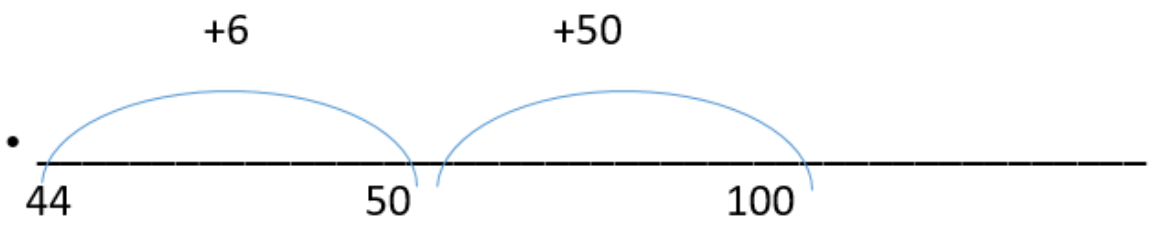
Finding the difference

Finding the difference is taught by counting on from the smaller number until you get to the bigger number.

Put the smaller number in your head and count on moving one of your fingers each time you count a number. The total number of fingers you show is the difference between the two numbers.

If the difference is too big to count on your fingers then you could use a number line.

Your stickers cost 44p, how much change do I get from £1 (remembering £1 =100p)

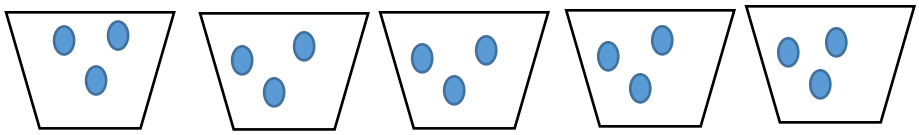


Then add up the numbers written above the ‘jumps’, in this case 50 + 6 =56p

Multiplication

Multiplication is introduced as counting groups of objects (this links to the concept of multiplication being the same as repeated addition.) Pictures are also a helpful way for children to visualise how to solve a problem.

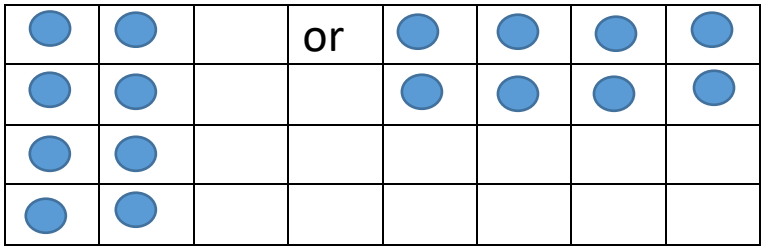
There are 3 sweets in a bag. I have 5 bags, how many sweets to I have? The visual representation shows that 3 x 5 = 15



Arrays

Arrays are another way to visually represent a multiplication sum.

4 x 2 = 8 The array for this would be either 4 rows of 2 or 2 rows of 4. This reinforces that multiplication can be done in any order.



We also teach the children to multiply mentally. For example, 3 x 5, count in 5s 3 times OR count in 3s 5 times. When completing multiplication facts for the 10 times table, it is more sensible to use a mental method than a visual array.

6 x 10 = 60, count in 10s 6 times.

The grid method

Some children are also introduced to the grid method towards the end of year 2. This is a useful way to introduce multiplication of a 2 digit number and provides an interim step before the children are introduced to column multiplication in Key Stage 2.

12 x 5 =

X	10	2
5	50	10

50 + 10 = 60

Partition the two digit number into tens and ones and calculate each part of the sum separately. Then add together the totals of each of the calculations.

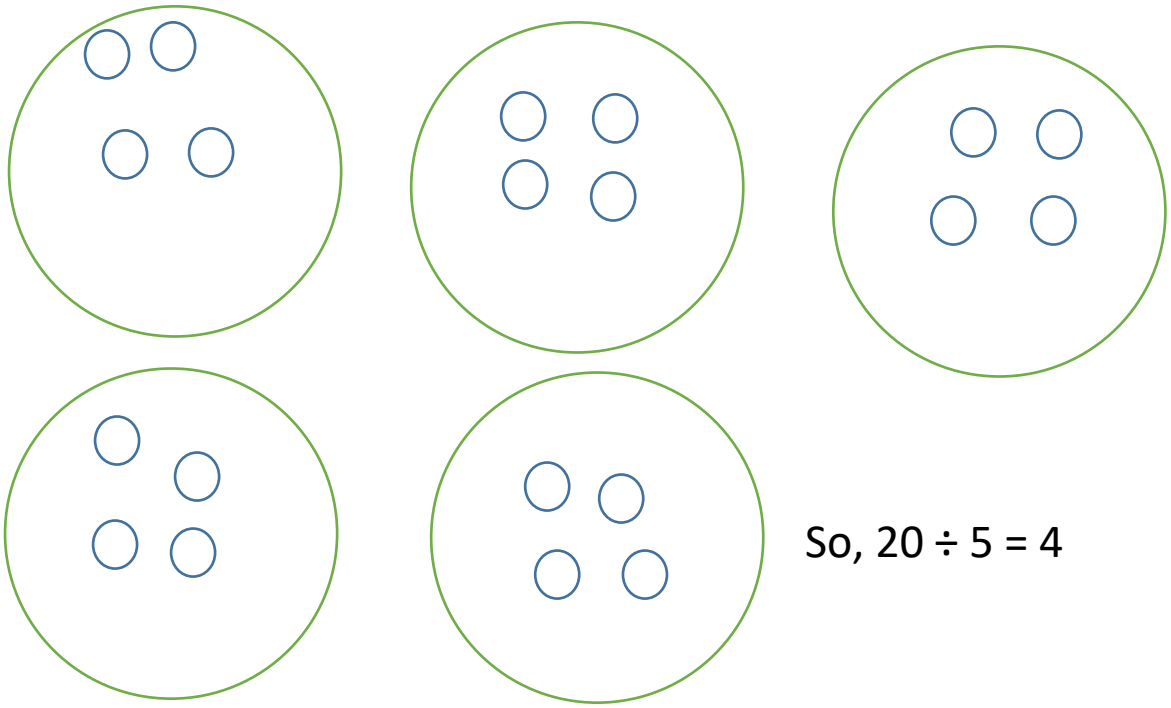
By the end of year 4, the children are required to know all of their times tables up to 12 x 12. Therefore, it is important that we give the children lots of opportunities to practise times table facts when they are younger. However, the most important element of multiplication in Key Stage 1 is that the children understand what multiplication is and can begin to make links to division.

Division

Division is introduced as sharing. There are 10 sweets and 2 children. How many sweets does each child get?
This is then extended to division number sentences.

20 ÷ 5 =

Firstly, the children need to understand how many groups they are sharing into, in this case 5 groups.
Draw 5 large sorting circles. Then count up to the number they are dividing (in this case 20), drawing a small circle in each of the large sorting circles. It is important to count each circle as it is being drawn so they remember to stop at the appropriate number. They need to alternate between the large sorting circles " 1 for you, 1 for you, 1 for you, 1 for you, 1 for you" and repeat in the same order.



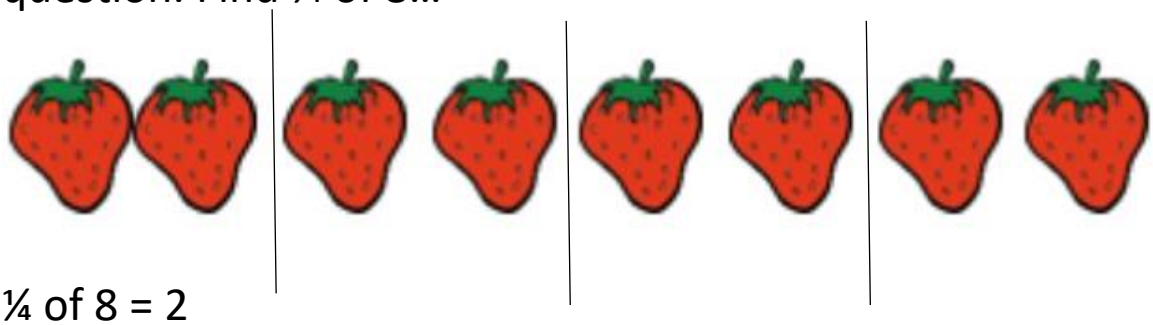
So, 20 ÷ 5 = 4

20 ÷ 5 can also be calculated mentally. Count in 5s until you get to 20. Every time you count hold one of your fingers out. The number of fingers will give you the number of groups you have counted for the answer to the question.

Fractions

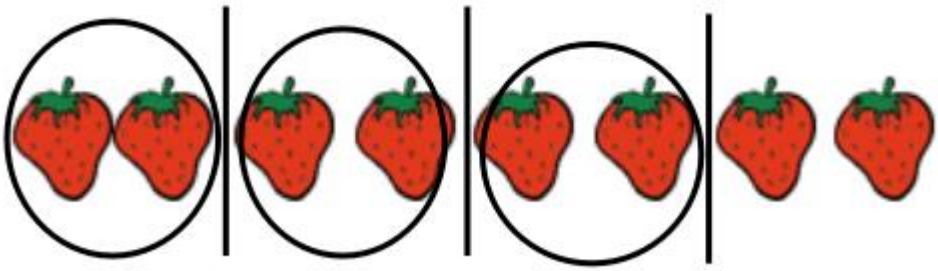
When being asked to find fractions of numbers, the children can use their division skills. Finding half (or two quarters) is the same as dividing by 2, finding a quarter is the same as dividing by 4.

When being asked to find ¾ first calculate ¼ then multiply by 3. A pictorial representation is useful for this more complex question. Find ¾ of 8…



¼ of 8 = 2

Then to find ¾ count 3 of the groups



So ¾ of 8 = 6