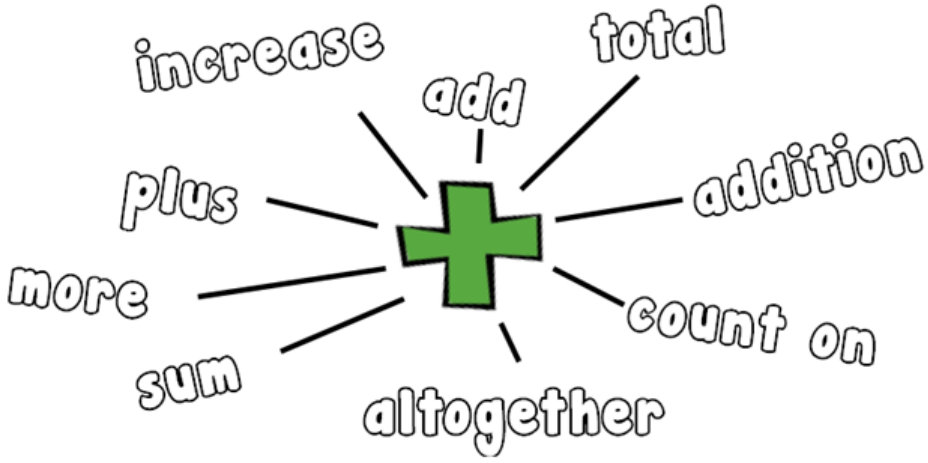
Parent Guide to KS1 Addition

Addition Vocabulary

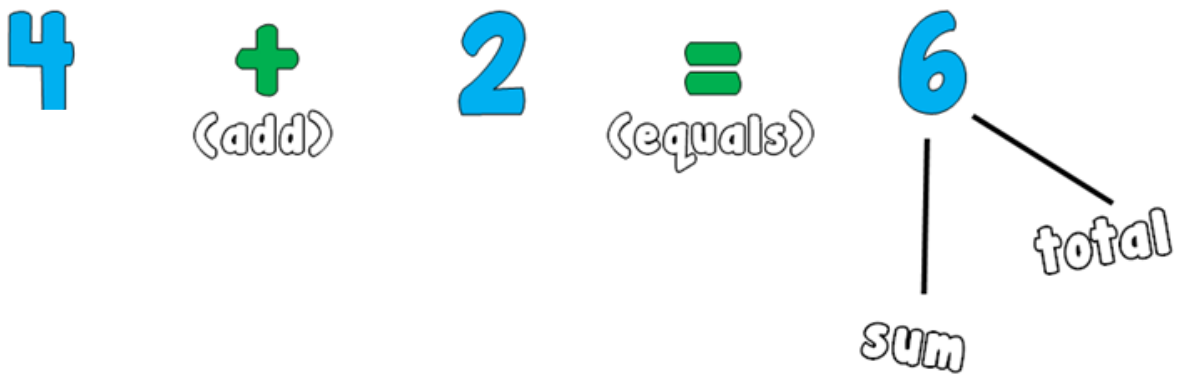


The word sum means to add so we only use this word when adding.

When using the other operations we would use 'number sentence' or 'calculation.' Pupils will develop their knowledge using whole numbers.

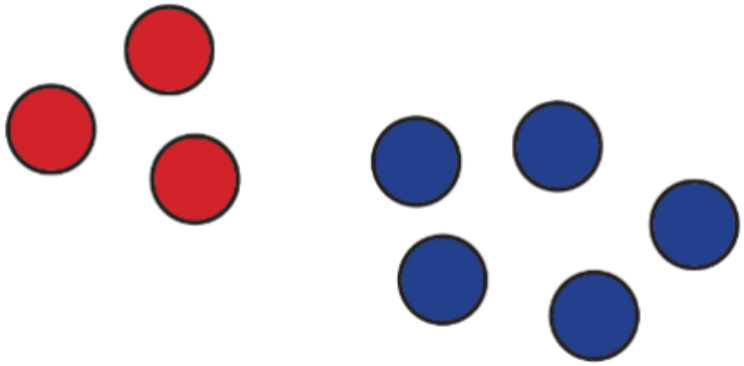
For example: 4 + 7 = 11 and 10 – 6 = 4 are both calculations or number sentences.

Addition Calculation



Objects and Pictures

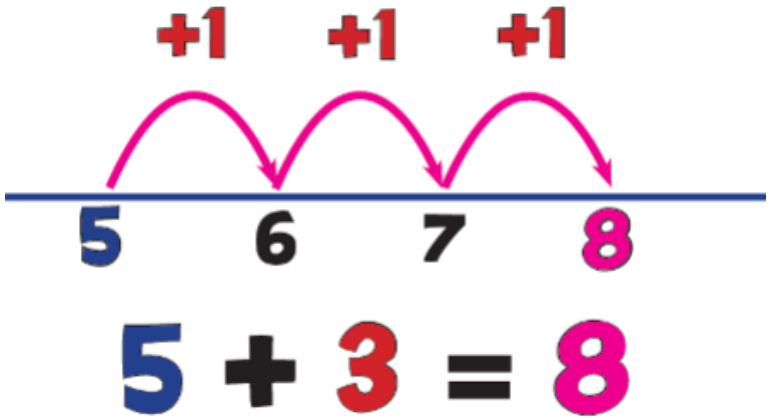
Pupils should be encouraged to use practical items to support their early development and be able to represent their ideas in their own individual way. Any easily handled object may be used, from beads or blocks to apples or cups.



If I have 3 and then 5 more, how many altogether? Answer: 8

Counting On

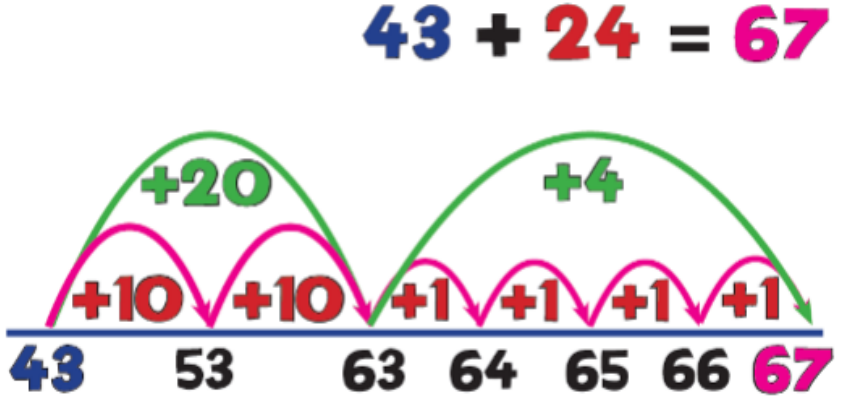
This is how we would model adding on a number line. To begin with pupils are encouraged to count on in ones from a starting point.



Number Lines

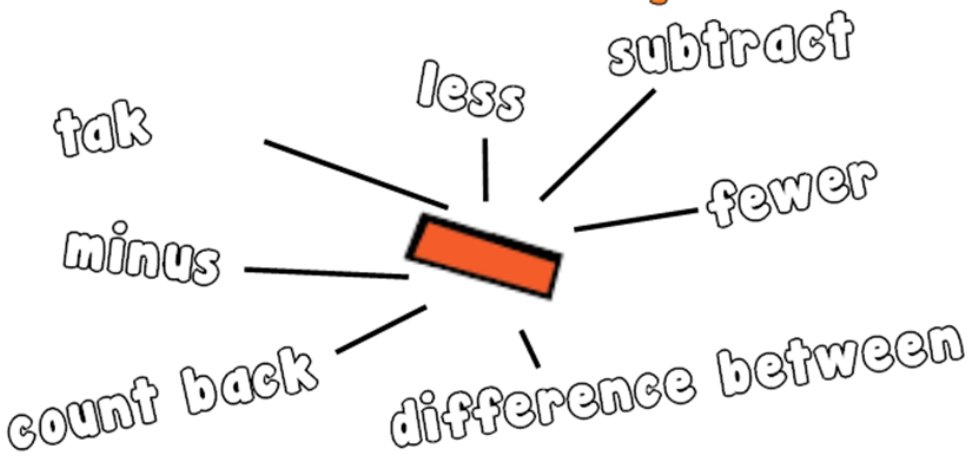
By the end of Year 2, number line work is developed to add up two 2-digit numbers. Pupils will use their knowledge of partitioning to record their addition on a number line.

As pupils progress, so do their jumps, moving from jumping in 1s and 10s to adding 20 and 4 in larger jumps.



Parent Guide to KS1 Subtraction

Subtraction Vocabulary



Subtraction means you are taking something away from a group or number of things. When you subtract, what is left in the group becomes less.

An example of a subtraction problem is the following: 5 - 3 = 2. Subtraction can also be seen as taking away and finding the difference.

Subtraction Calculation

Objects

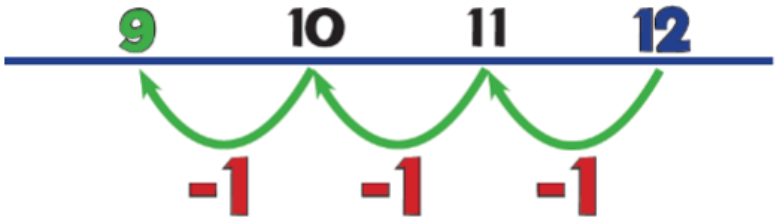
To begin with pupils are taught the concept of subtraction using practical objects and physically taking objects away.

7 - 3 = 4

What do I get if I take away 3 from 7? Answer: 4

Number Line

Pupils will move onto number lines to represent their mental strategies – taking away by counting back. Put the largest number at the end of the number line and then count back in 1s. The pupils can then see which number they land on.

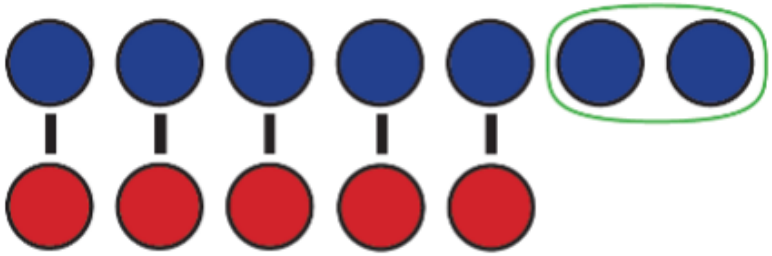


12 - 3 = 9

What do I get if I take 3 away from 12? Answer: 9

What's the difference?

To find the difference line up counters (or objects) and compare. Pupils struggle with the term difference as they often associate it with what is different between two things not how many more or how many less there are.

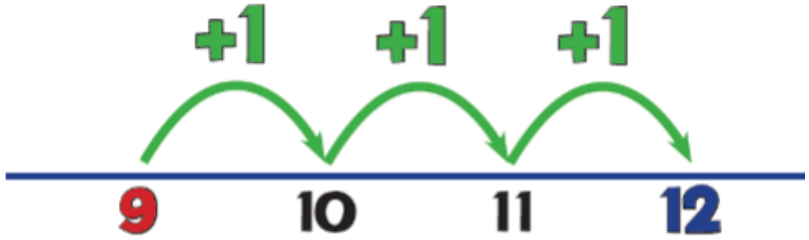


7 - 5 = 2

How many more is 7 than 5? What is the difference?

Counting on

A number line can also be used to count on. Start with the smallest number from the calculation and count on until reaching the larger number in the calculation. The amount of jumps is the difference between the two numbers.

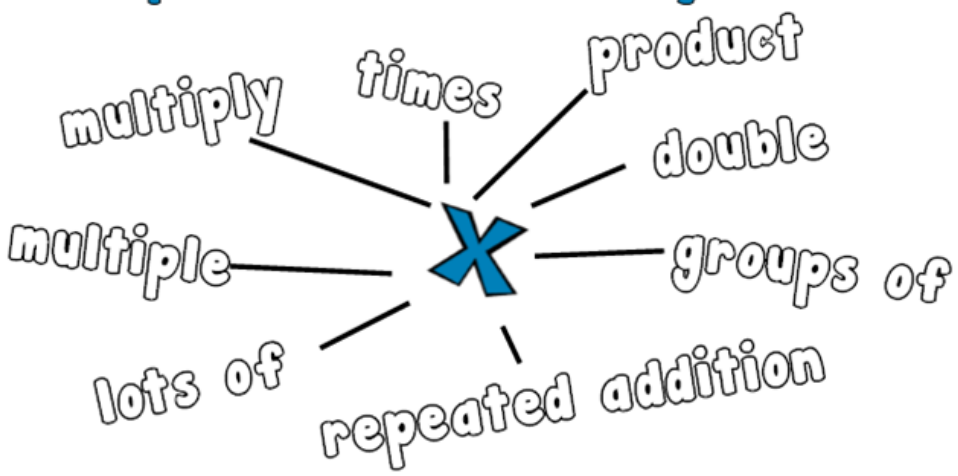


12 - 9 = 3

How many more is 12 than 9? What is the difference?

Parent Guide to KS1 Multiplication

Multiplication Vocabulary



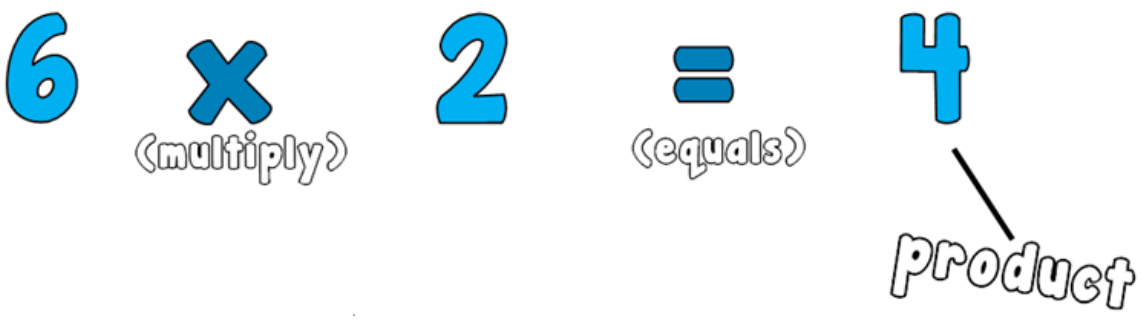
In Key Stage 1, the ideas of multiplication and division are based on knowledge of number patterns as well as grouping and sharing. They will use phrases like 'lots of', 'groups of' and 'shared between'. By Year 2, pupils will have been introduced to the symbols x and ÷ and extended the vocabulary that they use.

To support your child, focus on counting in steps of 2, 5 and 10, forwards and backwards and from different starting numbers.

For example: "We have 2 sweets each. How many are there in total?"

"How many pencils do we need if everyone needs 2?"

Multiplication Calculation



Repeated Addition using Groups

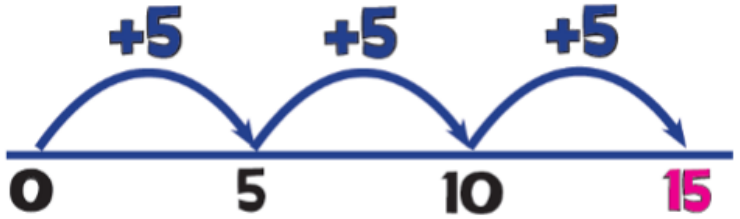
Repeated addition is taught, as a basis for helping pupils understand multiplication. A pupil may be asked to work out what 3 lots of 5 are. They may be asked to make 3 groups of 5 counters. Then they may be asked to write the number sentence 5 + 5 + 5 = and then work out the answer, which is 15.

$5 \times 3 = 5 + 5 + 5 = 15$

5 multiplied by 3 means 5, 3time which gives 3 lots of 5!

Repeated Addition using a Number Line

We can represent multiplication as jumps on a number line repeatedly adding groups of the same amount.

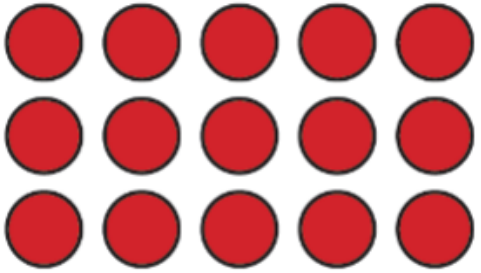


$5 \times 3 = 5 + 5 + 5 = 15$

5 times 3 means 5, 3 times.

Arrays

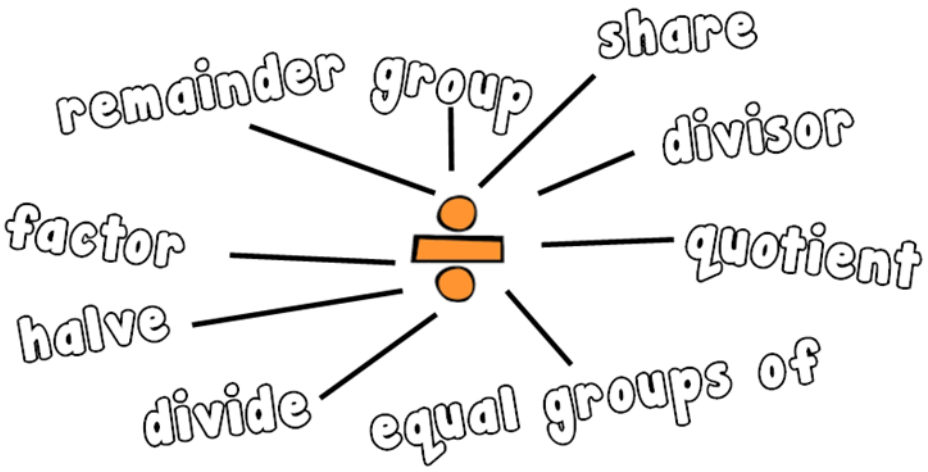
In school, we also develop the pupils understanding of multiplication using an array where you count rows and columns. Visually, you can see the calculation including the answer. This helps pupils understand that multiplication can be done in any order 3 x 5 is the same as 5 x 3.



$3 \times 5 = 15$ or $5 \times 3 = 15$

Parent Guide to KS1 Division

Division Vocabulary



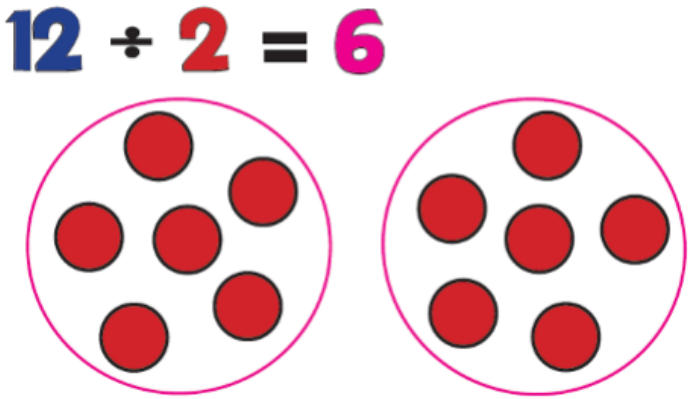
In Key Stage 1, division is based on the idea of number patterns as well as grouping and sharing. By Year 2, pupils will have been introduced to the symbols x and ÷ and extended the vocabulary that they use.

Pupils will be encouraged to discuss their mathematical learning and will begin by using the vocabulary of 'equal groups' and 'sharing'.

Division Calculation

Sharing

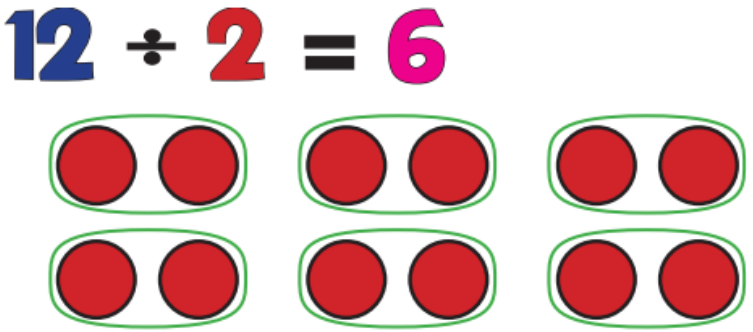
Firstly, we introduce division as sharing. Using practical resources, share the objects between 2 groups (when dividing by 2). Use even numbers: 2, 4, 6, 8 etc. to avoid having any left overs (remainders). Pick one object up at a time and share equally. Remind the pupils of the maths they are doing. For example, 6 shared by 2 is 3.



If I share 12 into 2 equal amounts, how many in each ? Answer: 6

Grouping

Pupils will also develop their understanding of division through grouping. This will be the foundation for the strategies and written methods that are used in Key Stage 2. Also, this is based on their knowledge of number patterns, which is essential for learning their times tables.

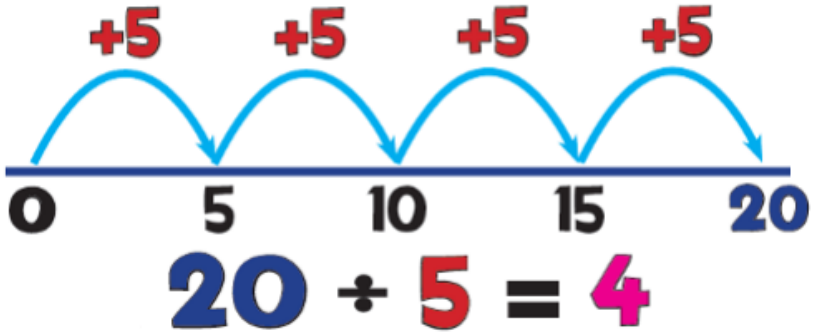


How many groups of 2 can I fit into 12? Answer: 6

Number Lines

This step is based on knowledge of number patterns and times tables facts. The pupils will record their method using an informal jotting on a number line.

It is important that all the operations are introduced to the pupils using practical objects and everyday situations to ensure they understand the process.



How many 5s in 20? Answer: 4

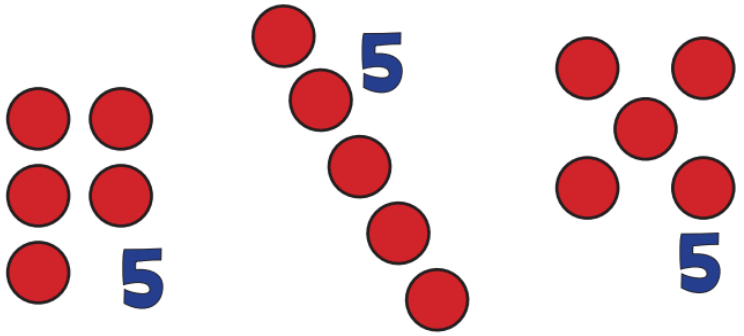
Parent Guide to KS1 Maths Skills

Counting - Number Order

The numbers must be said once and always in the standard order.

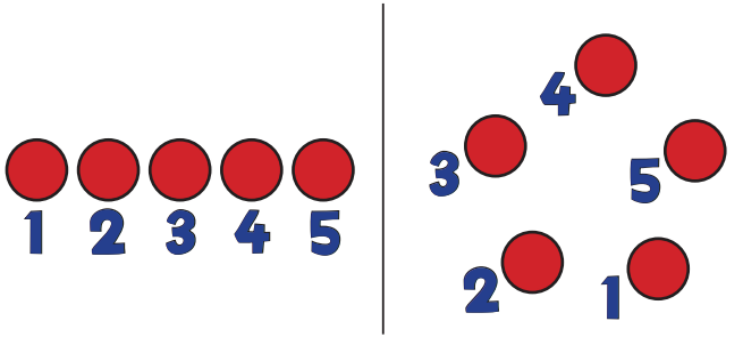
At a Glace – Subitising

See at a glance how many items there are in small collections and attach correct number names to such collections.



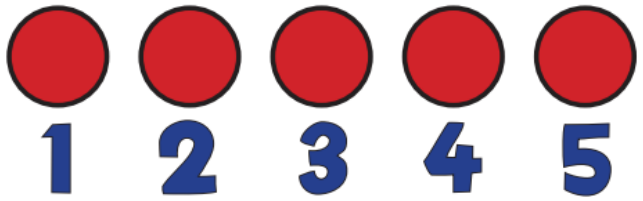
Order Arrangement

Understanding that the arrangement of the items does not change how many objects there are.



How Many?

Understanding that the last number counted tells us how many items there are in the whole collection.



Berrybrook Primary School

Counting Forwards/On

Counting Backwards

Counting in Steps

Counting on or back in steps of a given number.
For example, 2, 4, 6, 8 or 5, 10, 15, 20

Arranging

Being able to group objects into given amounts.

For example, these are grouped into 5s. When the total is not a multiple of 5 such as the number 7 it is split into one 5 and the remaining 2.