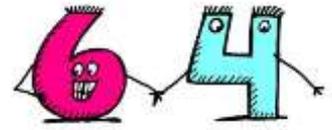


Number Bonds



There are many terms used to refer to the pairs of numbers that go together to make another number. Sometimes they are referred to as 'Number Pairs', 'Number Facts' or 'Number Bonds'.

When we talk about '**Number Bonds**', this is the idea we are referring to:

9 + 1 will always make **10**.

6 + 4 are also number bonds of **10**.

5 + 15 will always make **15**.

Addition and Subtraction to 10: <https://vimeo.com/70320280>

Practical application: <https://vimeo.com/70320281>

'**Partitioning**' is when you take a number and split it into two groups. For example:

10 can be partitioned (split) into 1 group of 3 and one group of 7.

10 can also be partitioned into 1 group of 6 and one group of 4.

6 can be partitioned into 1 group of 5 and 1 group of 1. →



'**Commutativity**' means that two numbers can be added or multiplied & the same answer will be found, no matter what order they are in. For example:

$4 + 6 = 10$ and so too does $6 + 4 = 10$.

With addition and multiplication facts, once you've learnt one fact, you can flip the number order and you'll automatically know another fact!

Use the number facts you know to help you with bigger calculations!

Once you know the Number Facts to ten, it is easier to apply this knowledge to larger numbers.

For example, when you know that:

$$4 + 6 = 10$$

it is easier to understand that

$$14 + 6 = 20$$

$$6 + 14 = 20$$

$$16 + 4 = 20$$

$$14 + 6 = 20$$

$$40 + 60 = 100$$

$$60 + 40 = 100$$

For KS1 and Lower KS2, watch this link explaining how to apply number fact knowledge to larger numbers:

<https://www.youtube.com/watch?v=6kOdxCkhEWk>

Children need time to practise number facts in interesting ways and different environments. The best way to start learning number facts is by **using objects** that you can arrange and move around. A **number line** might come in handy too. You can simply use a ruler or write the numbers in a line on a piece of paper (if you are practising the number facts to 10, you would just write the numbers 1-10 on the page).

For EYFS and KS1, these videos give example of how to learn number bonds using finger and objects:

Using objects: <https://www.youtube.com/watch?v=2oKG0sCTzCY>

Using fingers: <https://www.youtube.com/watch?v=kccJ05Qn-Uw>

Number bonds tutorial (to 10): <https://www.youtube.com/watch?v=XI-1g7ZnHzA>

Number bonds tutorial using a Number Line (to 20): https://www.youtube.com/watch?v=BB_uj0XGWYA

Songs can help children remember number facts off-by-heart:

Number bonds to 10: <https://www.youtube.com/watch?v=OvbWuiYn-Uk>

