

1. Trusting the Count

If you want your child to succeed in Mathematics and want something that can be done at home to help them in the first 18 months of schooling, then what is detailed below is one of the most important things they can practise at home to improve.

Trusting the Count is the foundation of all work a person will do when working with number. It refers to a person having a solid understanding of what the numbers 0-10 are and what this means. It is also the ability to work flexibly, using different mental models.

A lack of understanding of these concepts often leads to misconceptions in the future and difficulty accessing all of the curriculum in future years.

Many of us who went to school before the 2000's, were taught these concepts in very different ways to which they are taught today. In fact, they may not have been taught at all.

A common assumption that is made by many people, is that if a child can count from 0-10 and write the numbers as a digit and a word, then they know and understand those numbers. These are all important things to learn, but they are only a part of the learning.

If I have 4 of something, what does that mean?

Many students can count how many items there are in a collection. The question is, do they know what that means?

Take this collection of items:



Most students will be able to count that there are four cars here.

If we then covered these items and then asked students to state how many cars there were, some would not be able to state that there are four cars there. The fact that they have been covered up can cause confusion and can show whether they understand that once you count them there will always be four, unless you specifically add or remove any.

This is extremely important to understand and links to adding or subtracting a number of items to/from a collection. If we add the following cars to the collection, how many do we have?



If a student understands that there are four in the original collection, they do not need to recount them. They can 'count on'; beginning with 4 they count "5...6" and know that there are now 6 cars. If they have to recount the original 4 cars, then they do not have an understanding of what that original four actually are.

Subitising

Subitising is a very important part of a student's number development. It is an ability to instantly recognise collections of numbers without counting them one-by-one.

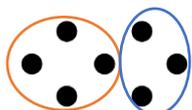
A clear example is a dice. We can all recognise that there are 6 dots on the dice below and we can do this without having to count them.

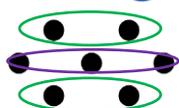
 It is said that an average person has the ability to recognise up to five items without having to count them or adapt a strategy. Dice faces are exceptions because we have used them multiple times and have learnt what they are.

If a child has to count them individually, then they have not developed mental models for these numbers.

Using examples that are not on a dice is important and will test their development more effectively.

With the example below, we could adapt different strategies to establish how many dots there are.

 You could recognise that there is a group of four dots and a group of three dots, so there are 7.

 You might see that there two groups of two and a group of three.

Deep Understanding of a Number

The final thing that is important is having an understanding of how the numbers 0-10 relate to other numbers.

If you were to ask a student at the end of the first 18 months at school about the number 8, it would be expected that they could count to up to 8 and back again, they could write the numeral and the word. It would also be expected that they know that it is one more than 7 and one less than 9. They should know that it is a seven and a one, a six and a two, a five and a three and a four and a four. It is also important to know what it is in relation to 10, so it is two less than ten.

Students should be able to do this for all numbers from 0-10.

Understanding all of the things detailed above, will be one of the most beneficial things they can learn mathematically at this age.

Activities / Games at home

There are many activities and games that can be played at home. Games are a great way to learn number facts as they often do not feel like you are learning.

- Use playing cards or Uno cards to group cards together. E.g. turn over a 7, then group cards below them; a six with a one, a five with a two and a four with a three.
- Lay the cards out upside down, in a grid in the same way you play 'Memory'. Select a target number (e.g. 5). Take it in turns to select two cards. If they turn over two cards that make the target number, they can keep them.
- Pick a target number and list as many facts about that number as you can. E.g. 7 is one more than 6, one less than 8, $2 + 5$ etc.
- Draw or print some subitising dots and play snap or memory with them.
- There are many other games that can be played. You can even make up your own!
- There are many subitising or number bond games online which can be used to support/practise, but shouldn't be used as the sole method of practising.

Have fun!