

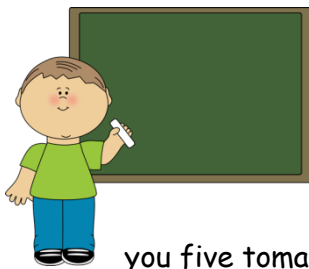
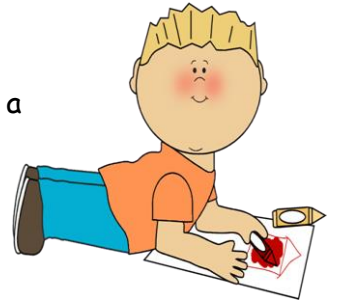
LEARNING ABOUT NUMBERS

Saying the counting words

To start with children learn to say the numbers words. They say
1, 2, 3, 7, 5, 9....

They often get the first three in the right order, and then remember a jumble. In time, they learn to say the words in the right order. Children learn to count forwards and backwards. It takes them a long time to learn all the numbers to 20 and beyond. They often get stuck at 29.

It helps to start counting sometimes from 20, 21, 22 ..., and to count in tens, 10, 20, 30, 40



Counting things

Counting things is difficult because you have to remember the words and point to objects at the same time. You have to say one word for each thing. When you ask your child to get you five tomatoes, he will sometimes just carry on counting past five, because he finds it hard to remember the numbers he needs to stop at. He may not realise that when he stops at five, he will have five things. You can see this when children count correctly, one, two, three, four, five, then if you ask, 'so how many are there?' they start to recount. They do not realise that the last number word tells them how many there are.

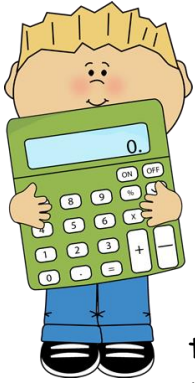
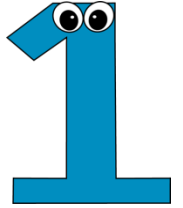
Counting is useful

Young children often get the message that counting is 'just saying the words' to please an adult. At home they can learn why we count:

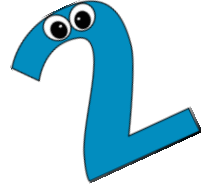
- To get the right number of things for everyone
- For a recipe
- To check no toys have gone missing.

Recognising numbers

To start with children will just recognise written numbers that mean something to them or that they see often, like their age or door number. Later they will spot the same number in different forms.



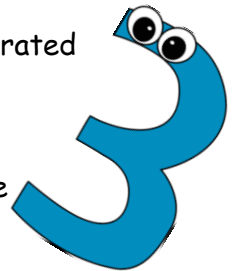
A four year old can recognise four on a TV remote control, a washing machine and a calculator. When they see numbers in order, for instance on a clock they can count round to find out what they are.



Later they will read numbers out of order, or put numbers in order.

You can show them higher numbers on tape measures, timers, scales, thermometers or the oven heat setting. You can point out different kinds of numbers, as on digital clocks, where numbers of hours and minutes are shown separated by a dot.

They can match these numbers on a calculator and become familiar with words like hundred, thousand and million.



Writing numbers

Later on, children will learn to write numbers, but this is also a matter of hand control. They need lots of practice writing large with chalk and paint brushes (with water) as well as writing small with pens and pencils.

Do not worry if children cannot write numbers the right way round. It is more important that children know what numbers mean, and getting numbers the right way round usually takes a long time.

Some children at seven and eight work out three figures sums in their heads, but still have trouble writing numbers the right way round.

Adding and subtracting

Young children can learn words to help with adding, like:

- * "one more"
- * "take away"
- * "altogether"
- * "how many left"



They will start to add and subtract by just adding one or taking away one.

Then they start to do this in their heads. They can then say how many there will be when they get one more biscuit, or when they eat one.

Children will learn what numbers make ten by using their fingers. They know that five and five makes ten. They can fold down two fingers and see that there are eight fingers still up.

Young children quickly learn the pattern of:

- * one and one is two
- * two and two is four
- * three and three is six

It helps if they use their fingers to do this.

Young children do not need to know about the + and - and = signs. It is more important that they can talk about "adding more" and "taking away", and the numbers you get when you do this.

Measuring

Young children learn to use a range of words like heavy, light, tall and short. To start with they just say "big and "little" for everything, whether for size or weight measuring.

Later they learn that long, tall, high, wide and short are all words to do with measuring length.



Later they learn to use "than":

- * "this car is bigger than that"
- * "this bag is heavier than that"
- * "I am taller than you"

Then they learn to put things in order, like putting the cars away, biggest first:

- * "this is the biggest"
- * "this is the next biggest"
- * "this is the smallest"

They also begin to learn words like centimetres, kilos and litres.

They begin to learn which words you use for measuring different things.

- * Does milk come in litres or kilos, or centimetres and metres?
- * Which of these units do you use for measuring height or weight?

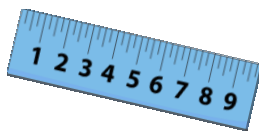


Understanding all of this is quite hard, but it is something that children will pick up naturally if you talk about it.

They readily learn to recognise shoe sizes. They know that sizes in clothes are meant to match your age, but often they do not.

Young children also learn about measuring tools. They learn that tape measures are for length and height, that scales are for weight, measuring jugs are for volume and clocks and calendars are for time.

Time is a hard idea for young children, but it is very interesting to them. Their age is the most important number to them.



Other people's ages are important too, because they often like to know what is going to happen. They learn the order of the times of the day. They learn about morning and afternoon, and special times like mealtimes and bedtime.

They can learn to recognise numbers on the clock and important times, like TV programme times, time to go to school, or when they get up in the morning.

The calendar is a good way of learning numbers to 31 and getting to know the days of the week and the names of the months. In doing this they will learn language like "yesterday", "tomorrow", "week", "month", "how long", "soon" and get to know the order in which things happen and so on.

Shapes and where things are

Young children notice that things are the same shape. They learn to talk about shapes using words like "round", "flat", "corners". They enjoy fitting things together, making patterns, and making things look balanced. They like to talk about what is the same and what is different.

When children play outside they learn to talk about where things are, using words like "next to", "behind", "left" and "right". Later they learn to draw, and work out ideas of how things look from different viewpoints with drawings and maps.

