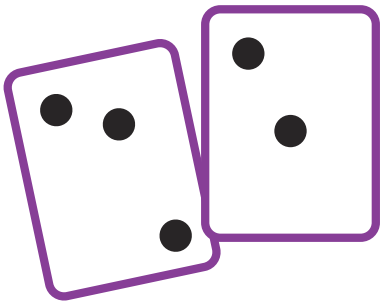
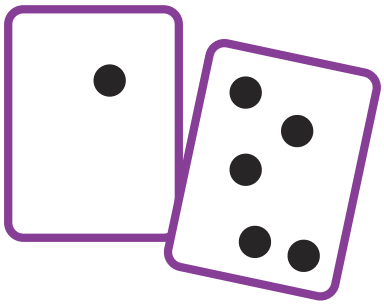


A Guide for Subitising Parents and Carers



What Is Subitising?

Think back to the last time you played a board game. Each time you rolled the dice, you knew straight away how many spaces to move. You didn't have to count all the dots on the dice face - you just instantly recognised the number from the pattern of the dots.

What you are doing when you look at a dice is 'subitising'. Subitising is the ability to look at a small number of objects and instantly recognise how many there are without needing to count. Subitising is starting to be recognised as a really important skill in early maths development in young children, and it's really important to develop and practise subitising even before the skill of counting.

Studies show that young children naturally subitise. Babies are drawn to faces, and when they look at a caregiver's face, they see an arrangement of features - two eyes, one nose, one mouth. They don't know that the 'name' of the number of features they are seeing is 'four' - but they see the pattern nevertheless.

Why Is Subitising Important?

Subitising is important because:

- it develops understanding of what numbers mean or how many 'things' a number refers to;
- it develops pattern recognition;
- it reduces over-reliance on counting.

Subitising is actually more efficient than counting when we are looking at smaller numbers. If a child can instantly see that there are, three objects this saves them from having to count them individually. In addition, think about what happens when you count individual objects one by one. You have to say one number name for each object, you have to know the order that numbers come in (one, two, three, four and so on), you have to make sure that you don't miss any objects out or count any twice, and you have to understand that it is only the last number you say that represents the total number of objects in the group. Quite a lot of concepts to deal with - and all are important. But learning to subitise effectively can really support children in developing a deep understanding of mathematical concepts.



How Do We Subitise?

There are two types of subitising - perceptual and conceptual. Perceptual subitising happens naturally - our brains can cope with recognising up to five objects quite easily. Conceptual subitising happens in numbers above five - the brain cannot immediately see the whole amount, so instead looks for smaller groups within a bigger arrangement. Let's look at an example of that.

Here's an arrangement of objects:



Your brain tells you straight away that there are three pine cones here.

Here's another arrangement:



Your brain may not be able to immediately tell you that there are eight acorns here. What it can see is a group of five and another group of three, which you can then add together and know that there are eight in total. You might automatically know that five plus three is eight, or (especially if you are a young child) you may see five and then count on three more. Separating and combining numbers in this way is the basis of future addition and subtraction skills.

While counting objects remains a really important skill in young children, subitising is just as important, and in many ways is a simpler and easier skill to attain. Being able to subitise means that future skills, such as counting, adding and subtracting, come more easily and make more sense.

Helping Your Child at Home

So, what can you do at home to help your child to subitise? Here are some fun activities that are easy to do with items you can easily find in your home and surrounding area.

Finding Groups

This game can be played in the house or when you are out in the garden or having a walk. All you need to do is challenge your child to find groups of objects and tell you what they see - maybe three leaves on a branch, two clouds in the sky, four pebbles on the ground. You can do the same with small bricks, pieces of pasta or counters - scatter some onto the table or the carpet and help your child to notice groups. You could also challenge your child to find groups of a specific number of objects, such as three. Avoid asking the question 'how many?' as this can encourage counting. Instead, say, 'What do you see?'

Three/Not Three

This follows on from the first activity. Find different groups of objects and ask your child, 'Three or not three?' (or another number up to five).

Show Me

Ask your child to look at a group of objects and show you on their fingers what they can see. You can take this further by asking your child if they can show you the number in different ways. For example, showing three using two fingers on one hand and one on the other, or three fingers on one hand.

Sorting and Classifying

Collect a group of objects - natural materials and things you may find outdoors are great for this - and encourage your child to sort them according to their different properties. Once the objects have been sorted, talk about what children can see in each group, and maybe look at comparing some groups - does one group have more objects than another? You can do the same activity with other small 'loose parts', such as screws, nuts and bolts or different shapes of pasta. If a group has more than five, encourage your child to sort it into smaller groups, for example into twos, and then talk about how many groups of two there are.

Beat the Clock

Use flashcards showing different numbers of objects up to five and challenge your child to see how quickly they can tell you what number they see. You could also use dice, dominoes or playing cards - anything with groups of dots or other images on. Alternatively, scatter up to five small items, such as counters, pasta shapes or plastic bricks onto the table or carpet and see how quickly your child can tell you what number they see.

