

10 interesting things - Maths challenge



This activity is based on subitising– the ability to see an amount without having to count them all.

- 1) Go outdoors and find 10 interesting things - preferably from nature. Try and make them different things but if you have 2 of the same things make sure they look different.
- 2) If your child collects more than 10 things that is fine but make sure they choose ten items from what they have collected.
- 3) Ask your child - are there ten? Can you find out without counting in 1s? What other numbers can you see inside the whole set?
- 4) Get your child to choose 2 items– ask what is the same? What is different?
- 5) Change one of the items and ask again what is the same? Different?
- 6) Extension– order objects by size or make equal groups.

Please send in pictures of your 10 interesting things for us to share.

What is 'subitising'?

Subitising is a term that was introduced by the Swiss psychologist Piaget. It is the ability to look at a small number of objects and instantly recognise how many objects there are without needing to count. In the early years, children look at tally marks, how many fingers are being held up or the dots on dice to help develop this skill.

There are two types of subitising: perceptual and conceptual. Our brains can only easily subitise numbers up to five – this is perceptual subitising. Anything above five is conceptual subitising. This is because the numbers then start to relate to a larger quantity of things and identifying 'how many' without counting becomes more difficult. For example, to subitise six, we would need to subitise three and three; four and two; or five and one. Only then could we combine the number pairs together to arrive at an answer of six.

Why is it important?

Subitising is essential for children's mathematical development for many reasons:

Subitising helps children to understand what numbers mean or how many 'things' a number refers to.

It can develop children's pattern recognition.

Children can over-rely on counting.

Subitising is an alternative strategy, which is more efficient when dealing with smaller numbers. It helps children to see how numbers are made up. For example, you can make the number eight using many pairs: 1 + 7, 2 + 6, 3 + 5 and 4 + 4. By separating and combining numbers through subitising, children lay the foundations for addition and subtraction.

Children also learn an important mathematical law through subitising: it doesn't matter in what order you add numbers together – you always get the same answer! For example, 2 + 3 = 5 and 3 + 2 = 5.