

Doubling and Halving: The Number Bonds That Unlock Mental Maths

A gentle guide to help your child in Year 2 understand doubling and halving, and how these patterns make mental maths easier and more playful.

What are doubling and halving?

In Year 2, children learn about doubling and halving numbers up to 20. Doubling is simply adding the same number to itself (like $4 + 4 = 8$). Halving is the opposite; it is splitting a number into two equal groups (like half of 8 is 4). These are closely linked to number bonds, which are pairs of numbers that add up to a certain total. Instead of just memorising lists, children are encouraged to see the patterns. For example, if they know that $6 + 6 = 12$, they automatically know that half of 12 is 6. This foundation helps them later when they move on to more complex multiplication and division.

How children learn these patterns

Teachers use visual tools to help children 'see' the maths. You might hear your child mention a part-whole model, which is a simple diagram showing how a whole number is made up of smaller parts. They may also use bar pairs to show that two equal bars together make a double. By using these models, children learn that doubling is a fast way of adding and halving is a way of sharing equally. This visual approach helps children with SEND (Special Educational Needs and Disabilities) or those learning English as an additional language to grasp the concepts without relying solely on words.

What this means for your child

Learning these facts helps your child feel more confident with mental maths—calculating in their head without needing a pen and paper. By spotting these patterns, they won't feel they have to memorise every single sum in isolation. However, some children find the language tricky. A common mix-up is confusing 'half of' with 'half as many'. Your child's teacher will work on these distinctions in class, but every child progresses at their own pace. If you are unsure how your child is getting on, your child's class teacher is the best person to ask for an update.

Simple ways to help at home

You don't need any special equipment to practice these skills; you can keep it playful and short. While snacking, you could ask, 'I have 4 grapes, if I double them, how many will I have?' or 'If we share these 10 crackers in half, how many do we each get?'. You can use buttons, socks, or toy cars to make pairs. Avoid drilling or pressure; instead, look for 'doubles' in the real world, like the wheels on two cars. We have also provided a short practice sheet with pairs up to 20 that you can use for a few minutes of fun together.

Common questions

Parents often ask if their child must memorise all the doubles up to 20. The goal is for children to become fluent, but this happens through play and practice rather than rote learning. Another common question is whether halving is the same as dividing. Yes, halving is a specific type of division where you divide a number by two. If your child is struggling with a particular number, try using physical objects they can

move with their hands, as this often makes the concept click. For specific guidance on the Year 2 curriculum, please check with your school.

Sources

- Department for Education, National Curriculum in England: Mathematics programmes of study
- GOV.UK, National Curriculum