Number Bonds to 10: The Pairs Every Year 1 Pupil Should Know by Heart

Number bonds to 10 are pairs of numbers that add up to 10, such as 3 and 7, or 6 and 4. When children know these pairs by heart, so they come to mind quickly without counting, they have a strong base for much of the maths they meet in Year 1 and beyond. This guide explains what that means, what usually happens in school, and simple, playful ways to practise at home. Schools organise maths in different ways, so please ask your child's teacher what they are focusing on now.

What it is

A number bond is a pair of numbers that combine to make a particular total. The bonds to 10 are the pairs that make 10: 0 and 10, 1 and 9, 2 and 8, 3 and 7, 4 and 6, and 5 and 5. Once a child knows that 3 and 7 make 10, they can also see that 10 take away 3 leaves 7. Teachers call the quick, confident recall of these facts “fluency”. It means answering straight away, without counting on fingers or objects, because the fact is already familiar. These pairs belong to the early number work in the National Curriculum, the national programme of study that most schools in England follow.

What happens

In Reception, the first year of primary school for children aged four to five, children begin with numbers to 5. They explore pairs through play, songs, stories and practical objects. The Early Years Foundation Stage (EYFS), the framework for children from birth to the end of Reception, expects children to recall number bonds up to 5 by the end of the year. In Year 1, for children aged five to six, the focus grows to pairs that make 10, and later to pairs within 20. Teachers use visual models to build this fluency. A ten frame is a grid of 10 squares that children fill with counters. A part-whole diagram shows a whole split into two parts. Finger pairs show, for example, six as one full hand plus one finger on the other. Each model shows the same fact in a different way. Lessons often include short, repeated practice at the start of a maths lesson.

What it means for your child

Knowing these pairs well frees up a child's thinking for harder problems. A child who knows instantly that 7 and 3 make 10 can work out 7 + 5 by making 10 first, which is sometimes called bridging to ten. Knowing that 4 and 6 make 10 also helps with subtraction, because 10 take away 4 must leave 6. If your child finds this tricky, that is very normal. Children learn at different speeds, and some need more time, more visual support, or a different way in. This includes children learning English and children with special educational needs and disabilities (SEND). The best guide is your child's own progress, so please talk to the teacher rather than comparing your child with others.

How you can help at home

Little and often works best, with a few minutes at a time that feel like play. You could roll a dice, then say the partner that makes 10. Use an egg box, which often has 12 cups: fill 10 cups with counters, then hide some and ask how many are missing. Share sweets or biscuits into two groups that make 10, and count the parts together. Point out pairs in everyday life, such as “there are 6 cars here and 4 there, that makes 10”. Use the words your child's school uses, and feel free to count in your home language too, since

strong number sense transfers across languages. Celebrate effort rather than speed. If your child seems tired, bored or upset, stop and try again another day. Timed tests and pressure are not needed.

Questions parents often ask

Does my child need to know these by heart? Schools in England aim for children to recall these pairs quickly and confidently during Year 1, but the exact timing varies, so ask the class teacher what they expect. Is it a problem if my child counts on their fingers? No. Counting on is a normal step, and most children gradually move to quick recall as they practise. Should I use flashcards or timed tests? Short, playful games are usually more helpful than timed drilling, which can cause worry. Where can I find out more? The Department for Education's guidance on GOV.UK explains what is expected in each year. Your child's teacher is the best person to ask about your child's own progress and the approach their school takes.

Sources

- Department for Education, "National curriculum in England: mathematics programmes of study" (GOV.UK). Key stage 1 Year 1 number content, including number bonds.
- Department for Education, "Early years foundation stage (EYFS) statutory framework" (GOV.UK). Early learning goals for number, including recall of number bonds up to 5.
- Department for Education, "Mathematics guidance: key stages 1 and 2" (GOV.UK). Non-statutory guidance on fluency and early number.
- Department for Education, "Ready to progress criteria: Year 1 mathematics" (GOV.UK). Non-statutory criteria describing the expected attainment at the end of Year 1.