

Addition: Mentally build on known addition facts: eg, $5+5=10$ so $5+6=11$, to help addition.

Make sure that the child is secure with number bonds to 10 before building on them.

Make ten and some more

Using a set of counters of one colour, ask the child to show the number bonds to 10. For example, a group of 7 and a group of 3, a group of 6 and a group of 4 and so on. Then take some counters of a different colour and place one in one of the groups. See images below:



This shows that $4+6=10$, add a counter of a different colour to one of the groups as below.



This shows that $4+6=10$, so $4+7=11$

This task should be used to encourage the child to see the connection between the number bonds they already know and further addition facts. The child can record this on a whiteboard in the following way: $4+6=10$, so $4+6+1=10+1$ so $4+7=11$.

Repeat this with other number bonds.

When they are confident with one red counter, go back to using counters and introduce 2, or 3 red counters. For example, $5+5=10$, so $5+5+3=10+3$ so $8+5=13$.

100 square

You will need a 100 square, some counters and dice. This activity also builds on number bonds knowledge, either to 10 or 20. Ask the child to place a counter on 10 and give a related addition sum, for example, $5+5$. They should write this sum on a whiteboard. They should then roll one die and count on that many more. If they rolled a 4, they would count on from 10, '11, 12, 13, 14'. On the whiteboard they can then write, $5+5+4=14$ and so $5+9=14$.

Repeat for other number bonds to 10 and extend to 20 if the child is confident and able to do so.

Numicon/Dienes

Get the child to choose two numbers which add to more than 10 – eg by writing different additions on pieces of paper ($5+8$, $7+4$, and so on) and getting them to choose one. Get them to do the sum using the apparatus.

Leave their sum on the apparatus in place. Then work back from say $5+8=13$ to ask them to make 10 with 8 ($8+2$) using the apparatus. Then get them what number they need to add to get 13 (3). This should let you show – using first and the second sum on the apparatus – that $5+8=5+5+3=13$. Discuss if you can do this with other sums.

If you know a number bond to 10 what else do you know?

Choose a favourite pair that adds to 10, say 4+6, and make with Numicon or Dienes. Discuss the meaning of the '='. ('Equals' means each side of the sign has to have the same value.)

What happens when you add a 10 to the 4? Does the total balance? How can you make it balance?

If you add a 10 to one side, you have to make it balance by adding a 10 to the other side:

Do this with the apparatus giving $4 + 10 + 6 = 10 + 10$. Then put the apparatus pieces together to make $14 + 6 = 20$

You can then show this on a part, part, whole diagram.

