

Maths Ninjas Set 3 (pairs to make 20)

The Maths Relevance Explained

The third set is about knowing the 12 pairs of numbers that add to make 20. It is closely related to the pairs that make 10 (the first set).

For each pair that makes 10, there are 2 related bonds that make 20. They are obtained by adding a ten to either of the starting numbers.

0 + 10 = 10	1 + 9 = 10	2 + 8 = 10	3 + 7 = 10	4 + 6 = 10	5 + 5 = 10
10 + 10 = 20	11 + 9 = 20	12 + 8 = 20	13 + 7 = 20	14 + 6 = 20	15 + 5 = 20
0 + 20 = 20	1 + 19 = 20	2 + 18 = 20	3 + 17 = 20	4 + 16 = 20	same

So, there are only 11 facts to learn, but your child needs to be able to use each fact however it is disguised!

eg. Knowing $13 + 7 = 20$ means that your child should also know

$$7 + 13 = 20$$

$$20 - 7 = 13$$

$$20 - 13 = 7$$

and that they can be written with the unknown in any position. eg. $7 = 20 - \square$

Instant recall of the pairs that make 20 is useful for both mental and written calculation. It is also an important stepping stone in understanding how to add or subtract a single digit number to any number.

With secure, instant recall of number bonds (addition and subtraction), your child will feel much more confident and be much more accurate doing both mental and written calculations.

How to Help Your Child to Learn these Number Bonds

- Revise a pair that makes 10, and then learn the related two pairs that make 20 on the first day, eg revise $1 + 9 = 10$ and then learn $11 + 9 = 20$ and $1 + 19 = 20$. Check recall at random times during the day, eg. "9 plus what makes 20? How do you know that?". It takes only a few seconds each time. On the second day, add in a second group of facts. Check recall of all bonds learned so far (including those learned in set 2) at random times during the day. After 6 days, your child will know the pairs that make 20 and should be able to relate them to the pairs that make 10. Then move on to disguising them, by asking, "20 take away 12 gives how many left?" and similar.
- Give your child mixed 10p, 5p, 2p and 1p coins. Challenge him/her to make up 20p in different ways, using knowledge of pairs that make 20.
- Play shops where all items cost under 20p. Customers come with 20p coins. Change must be worked out using number bonds of pairs that make 20.
- Once these bonds are known, try a revision game to reinforce them. If you can, buy a 0 to 20 die* (it is a lovely icosahedron shape), or make a set of little cards with numbers 0-20 on them. Play a board game with your child that needs two dice but use either your 0-20 die or your pile of cards. On your turn roll the 0 – 20 die or take a card, but you have to move the number that must be added to the number you rolled/picked to make 20. eg. If you rolled a 4 or turned over a card with a 4, you move on 16!

The parent should make a few deliberate mistakes (saying incorrect number bonds) for the child to spot. It usually helps the game along if you don't seem too perfect!

*A mixed set of dice, very useful for playing games to revise number bonds, can be bought for about £3 from Amazon