

## Maths Ninjas Set 5 (add & subtract single digit pairs)

### The Maths Relevance Explained

This set is an extension of previous sets so that your child will know all pairs of single digit numbers that can add to make any number up to 20. Your child should still remember the pairs that make 10 (set 1), the pairs that make less than 10 (set 2) and the pairs that make 20 (set 3), so that leaves the single digit pairs that make 11-19 in this set. There are 20 new bonds to learn here, plus your child should also appreciate that a teens number is a ten plus a single digit number in the units. eg.  $16 = 10 + 6$ . It is likely to take several weeks to learn all these new number bonds and have instant recall of them. The table below shows all the new facts.

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

They are best learned a group at a time, but remember that your child needs to be able to use each fact however it is disguised!

eg. Knowing  $6 + 8 = 14$  means that your child should also know

$$8 + 6 = 14$$

$$14 - 6 = 8$$

$$14 - 8 = 6$$

and that they can be written with the unknown in any position. eg.  $6 = 14 - \square$

Instant recall of these number bonds is essential for accurate and rapid calculation, both mentally and written.

eg. If you are adding  $58 + 77$  mentally, you need to know 2 of the above bonds

( $8 + 7 = 15$  for the units,  $5 + 7 = 12$  so  $50 + 70 = 120$  for the tens).

Similarly, if you were doing it as a written calculation, you would need those same 2 facts.

If you are subtracting  $134 - 56$  mentally, you need to know 2 bonds

(for the tens:  $13 - 5 = 8$  so  $130 - 50 = 80$ ,

for the units: 6 splits into  $4 + 2$ , so you can subtract 4 first and then 2).

If you were using the standard written method for this subtraction, you would need to know

$14 - 6 = 8$  and  $12 - 5 = 7$ .

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

### How to Help Your Child to Learn these Number Bonds

- Learn one group of facts at a time, eg the pairs that make 11. Check recall at random times during the day, eg. "2 plus what makes 11?". It takes only a couple of seconds each time. Next day, add in a second fact, eg  $3 + 8 = 11$ . Check recall of both facts at random times during the day, and continue to check that he/she remembers all previously learned number bonds too. After a few days your child should have learned the number bonds for

11. Then move on to disguising them, by asking, “ 11 take away 3 gives how many left?” and similar. When those are secure, move on to learn the next group.

- Ask practical, real life questions too. eg. You’ve picked up 9 conkers and I’ve found 7. How many do we have altogether? Which number bond helped you to know that? There are 14 biscuits in this new box. If all 8 of us have one, will there be enough left for tomorrow? Which number bond helped you to work that out?
- It is probably best to let your child choose the order to learn these bonds.
- Tip for learning the pairs that make 12: use a 12 egg box, put counters in the dips. It makes it more visual. eg. If you put 9 counters in, it is easy to see that there are 3 empty hollows.
- Once these new facts are known, try a revision game to reinforce them. If you can, buy two 0 to 9 dice\*, or make two 0 – 10 spinners. Play a board game with your child that needs two dice. On your turn roll both 0 – 9 dice, and add them together before you move. If you also say the related subtraction bonds you can move an extra space. eg. If you rolled an 8 and a 5, you would say  $8 + 5 = 13$  and then move 13 spaces. If you also said  $13 - 8 = 5$  and  $13 - 5 = 8$ , you could move one bonus space. 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