

### ➤ Notes for parents.

#### The purpose of the activity is to help your child to:

- Add numbers in the range 1–6, e.g.  $4 + 5 = 9$ ;
- Rename (split up) numbers in the range 2–12, e.g.  $9 = 3 + 4 + 2$ .

#### Here is what to do:

Set up the game. You only need two standard 1–6 dice, a printed copy of the gameboard, pencil and eraser. Then you are ready to play!

Your child might use a range of ways to add the dice numbers. The aim is fluency which means you want your child to just recognise many combinations without counting, particularly the easy examples like  $2 + 3$ . They will soon learn to do that after a few games. For more complicated additions like  $5 + 6$  many children of this age will count on either from the 5 (5, 6, 7, 8, 9, 10, 11) or from the 6 (6, 7, 8, 9, 10, 11). Your child will become a better mathematician if they connect their known and unknown facts. Here are some good questions to ask about  $5 + 6$ .

*“Do you already know a sum that is close to that?”* ( $5 + 5 = 10$  or  $6 + 6 = 12$ )

*“What could you do to  $5 + 5$  to make it  $5 + 6$ ?”* (Add one to  $5 + 5$  to get 11 or take one off  $6 + 6$  to get 11)

Renaming numbers is essential if your child is to gain flexibility in their calculation strategies. Children sometimes find renaming difficult so you need to be patient. It is important that you encourage risk taking. Children who try to rename, even if they make mistakes at first, soon gain more accuracy.

So what do you do if your child says something that is incorrect? For example, after throwing 5 and 6 to get 11 they aim to cross out 4, 3 and 5. Here are some good questions to ask.

*“How can you check that these numbers (4, 3, 5) add to 11?”* (Use known facts or count)

*“Okay, do you know some facts that will help?”* ( $5 + 4$  or  $5 + 3$  are good choices)

*“Do you know  $4 + 5$  or  $5 + 3$ ?”* (Ask only if your child does not suggest them).

*“Good,  $5 + 4 = 9$ . What will you get when you add the third number?”* (12)



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*“So  $5 + 4 + 3 = 12$  is too much. How could you fix that to get 11 without starting again?” (Take one off one of the addends to get  $4 + 4 + 3$ ,  $5 + 3 + 3$ , or  $5 + 4 + 2$ ).*

*“Which sum will work on your kiwi sheet? Why?”*

**Points to note:**

Addition can only involve two numbers at a time, it is a binary operation (‘bi’ means two). This idea can be confusing especially if there are three numbers to add. Your child may need support to understand that the sum of three numbers will be the same no matter which two of them you add first.

If your child gets stuck you may like to support them with materials. Any objects you can count with will be fine. Remember the game is about adding without counting, so fall back to the materials as a last resort. Even when materials are used be sure to ask for prediction, e.g. *“Now you have 5 bottle tops here and 6 bottle tops here. How many do you think that is altogether?”* (before joining the sets and counting). Recording symbols also can help your child see connections. Here is an example:

$5 + 5 = 10$   
 $6 + 5 = \square$

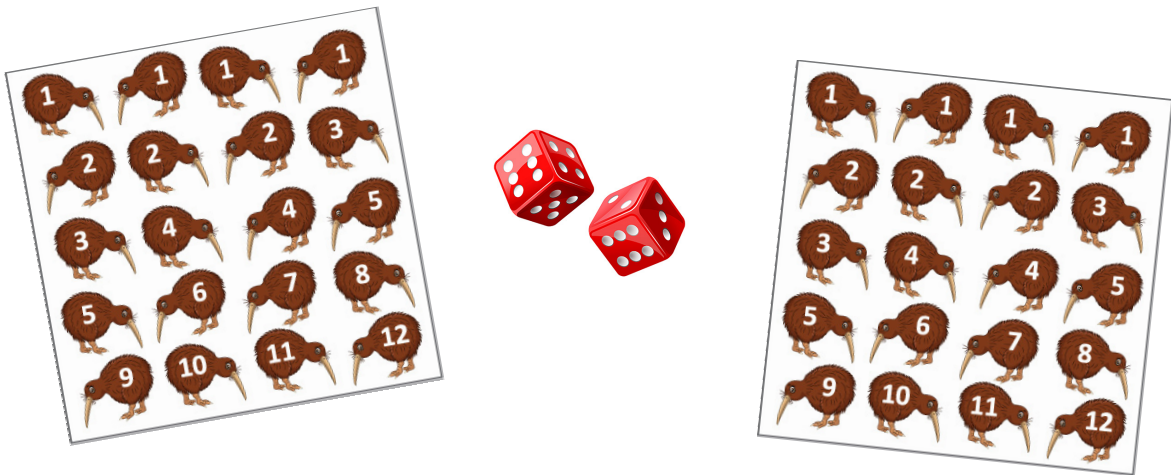


# Activity | Cover up kiwi

## Basic addition facts

Y2

This is a game for two people to play. You need a copy of the game sheet (next page), two dice, a pencil and an eraser. There is one box for each player.



### To play:

Take turns to roll the two dice and add the numbers that come up, say 3 and 4 so you get 7.

Cross out a set of kiwis that add to that total, so you might cross out 6 and 1, just 7, or 2 and 4 and 1. Once a kiwi is crossed you cannot use it again.

The first person to cross out all of their kiwi wins.

During the game you are allowed up to three 'changes' to use whenever you want. A change is the chance to turn one of the dice you throw to a different number.



