Number facts

Key learning

Recall multiplication facts up to 10×10 and use these facts to work out division facts, for example, knowing $4 \times 7 = 28$ means we can work out $28 \div 4$ and $28 \div 7$. Multiply pairs of multiples of 10 such as 20×60, 30×70.

Check that your child can:

- use mathematical words for multiplication and division, for example, 'multiply', 'times', 'groups of', 'lots of', 'product', 'factor', 'divide', 'share', 'equal groups of';

- give multiplication facts quickly and work out division facts to go with them, for example, $56 \div 7 = 8$.

Notes for parents/carers

Children need practice so they are able to recall or work out multiplication and division facts to help them calculate quickly and accurately.

Questions to ask your child

- What is 7 multiplied by 8?

- Divide 48 by 6.

- What is the product of 6 and 9?

- Is 72 divisible by 3? How do you know?

- Is 38 a multiple of 6? How did you decide?

- Is 8 a factor of 67? What information did you use?

Let's play…

Use a pack of playing cards, with the picture cards removed.

● Shuffle the cards. Take turns to pull out two cards and multiply the numbers on them together – the answer is your score. Repeat this five times, adding up the scores. Who has scored more?

● Take two cards to make a two-digit number. For example:

Use either 78 or 87.   Use 10 as 0, so 50.

● Ask your child to pick one card to represent a single-digit number. Is this number a factor of the two-digit number or is there a remainder when you divide? Use the remainder as their score and repeat five times.

● Now repeat, with your child picking two cards for the two-digit number.

● Which numbers give big remainders?

Activities to carry out together

● Pick a number, for example, 36. Between you, how many multiplication and division facts can you think of that involve this number? For example:

$36 \div 9 = 4$ $40 \times 9 = 360$ $36 \div 6 = 6$

Take turns to add a new fact. How many can you write in three minutes?

- Play 'Beat the calculator'. One person works out the answer to a multiplication or division question (similar to those opposite) with a calculator and one person works them out in their head. Who is the quicker?

- Play darts, dice and card games where numbers need to be added or multiplied together.

ICT links

If you have access to the Internet, you might like to explore a Primary Strategy interactive teaching program (ITP) called 'Number dials'. Go to:

www.standards.dcsf.gov.uk/primaryframeworks/library/Mathematics/ICTResources/itps/

6	Click on the 'up' and 'down' pointers to increase or decrease the number in the centre of the dial. Click on the number to hide or show the number in the centre of the dial.	**1**	Click here to select the range of the numbers in the centre of the dial. Choose from: 2–10 20–90 200–900 0.1–0.9 0.01–0.09
?	Click here to hide or show the multiples around the outside edge of the dial.	10 1 2 9 3 8 4 7 6 5	Click here to hide the numbers around the inside edge of the dial.

Activities based on ITP 'Number dials'

Activity – testing times tables

- Click on [?] to hide the multiples.
- To test your child on a times table, click 'up' [6] or 'down' arrows to select the table.
- Then click on [clock] to show the numbers round the dial.
- Ask your child to work out the multiples round the outside while you reveal each one to see if they are right – just click on the empty boxes.

Activity – working backwards from multiples

- This time, click on [dice] to pick a random number in the centre and mix up the numbers round the dial.
- Click on [?] to reveal the multiples. Try to guess the number at the centre.
- You can click the centre to reveal what it is. Now ask your child to work out each number on the inside of the dial. You can check they are right by clicking where each number should appear.
- You can invent more multiplication games by hiding and showing different parts of the number dials.

If you enjoy these activities you could try other ITPs from the same web address, such as 'Multiplication tables' (where you can use the random function, hide the answers and try to jot the answers down to see who is quicker) and 'Multiplication array'.