Key **I**nstant **R**ecall **F**acts
Autumn Term 1
Year 4

I know the number bonds for 100.

By the end of this half term, children should know the following facts. The aim is for them to recall these facts **instantly**.

Some examples:

60 + 40 = 100
40 + 60 = 100
100 – 40 = 60
100 – 60 = 40

37 + 63 = 100
63 + 37 = 100
100 – 63 = 37
100 – 37 = 63

75 + 25 = 100
25 + 75 = 100
100 – 25 = 75
100 – 75 = 25

48 + 52 = 100
52 + 48 = 100
100 – 52 = 48
100 – 48 = 52

Key Vocabulary

What do I **add** to 65 to make 100?
What is 100 **take away** 6?
What is 13 **less than** 100?
How many more than 98 is 100?
What is the difference between 89 and 100?

This list includes some examples of facts that children should know. They should be able to answer questions including missing number questions e.g. 49 + ◯ = 100 or 100 – ◯ = 72

Top Tips

The secret to success is practising little and often. Use time wisely. Can you practise these KIRFs while walking to school or during a car journey?

You don't need to practise them all at once: perhaps you could have a fact of the day.

Buy one get three free - If your child knows one fact (e.g. 28 + 72 = 100), can they tell you the other three facts in the same fact family?

Use number bonds to 10 - How can number bonds to 10 help you work out number bonds to 100?

Make it fun!

Timed Games: How well are you doing? How many questions can you answer in 2 minutes. Can you beat your own record?

http://www.conkermaths.org/cmweb.nsf/products/conkerkirfs.html Game 11 – How many can you answer in 90 seconds?

http://www.topmarks.co.uk/maths-games/hit-the-button Make 100

Broaden and Apply

http://nrich.maths.org/11819 Can you make 100?

http://nrich.maths.org/1130 Reach 100

http://nrich.maths.org/2006 Investigate the deca tree

Key **I**nstant **R**ecall **F**acts
Autumn Term 2
Year 4

I know the multiplication and division facts for the 6 times table.

By the end of this half term, children should know the following facts. The aim is for them to recall these facts **instantly**.

Some examples:

6 × 1 = 6	1 × 6 = 6	6÷ 6 = 1	6 ÷ 1 = 6
6 × 2 = 12	2 × 6 = 12	12 ÷ 6 = 2	12 ÷ 2 = 6
6 × 3 = 18	3 × 6 = 18	18 ÷ 6 = 3	18 ÷ 3 = 6
6 × 4 = 24	4 × 6 = 24	24 ÷ 6 = 4	24 ÷ 4 = 6
6 × 5 = 30	5 × 6 = 30	30 ÷ 6 = 5	30 ÷ 5 = 6
6 × 6 = 36	6 × 6 = 36	36 ÷ 6 = 6	36 ÷ 6 = 6
6 × 7 = 42	7 × 6 = 42	42 ÷ 6 = 7	42 ÷ 7 = 6
6 × 8 = 48	8 × 6 = 48	48 ÷ 6 = 8	48 ÷ 8 = 6
6 × 9 = 54	9 × 6 = 54	54 ÷ 6 = 9	54 ÷ 9 = 6
6 × 10 = 60	10 × 6 = 60	60 ÷ 6 = 10	60 ÷ 10 = 6
6 × 11 = 66	11 × 6 = 66	66 ÷ 6 = 11	66 ÷ 11 = 6
6 × 12 = 72	12 × 6 = 72	72 ÷ 6 = 12	72 ÷ 12 = 6

Key Vocabulary

What is 8 **multiplied by** 6?
What is 6 **times** 8?
What is 24 **divided by** 6?

They should be able to answer these questions in any order, including missing number questions e.g. 6 × ◯ = 72 or ◯ ÷ 6 = 7.

Top Tips

The secret to success is practising little and often. Use time wisely. Can you practise these KIRFs while walking to school or during a car journey?

You don't need to practise them all at once: perhaps you could have a fact of the day.

Double your threes – Multiplying a number by 6 is the same as multiplying by 3 and then doubling the answer. 7 × 3 = 21 and double 21 is 42, so 7 × 6 = 42.

Buy one get three free – If your child knows one fact (e.g. 3 × 6 = 18), can they tell you the other three facts in the same fact family?

Warning! – When creating fact families, children sometimes get confused by the order of the numbers in the division number sentence. It is tempting to say that the biggest number goes first, but it is more helpful to say that the answer to the multiplication goes first, as this will help your child more in later years when they study fractions, decimals and algebra.
E.g. 6 × 12 = 72. The answer to the multiplication is 72, so 72 ÷ 6 = 12 and 72 ÷ 12 = 6

Make it fun!

Songs and Chants – You can buy Times Tables CDs or find multiplication songs and chants online. If your child creates their own song, this can make the times tables even more memorable.

http://www.conkermaths.org/cmweb.nsf/products/conkerkirfs.html 6 x tables

http://www.topmarks.co.uk/maths-games/hit-the-button x 6

http://www.oswego.org/ocsd-web/games/mathmagician/mathsmulti.html x 6

Play number ping pong! Start by saying 'ping', child replies with 'pong'. Repeat with times tables facts i.e. say '9' and they reply '54'

Test the Parent – Your child can make up their own tricky division questions for you e.g. What is 42 divided by 6? They need to be able to multiply to create these questions.

Timed Games: How well are you doing? How many questions can you answer in 2 minutes. Can you beat your own record?

Games at www.multiplication.com and www.SumDog.com

Use memory tricks – For those hard-to-remember facts, www.multiplication.com has some strange picture stories to help children remember.

Broaden and Apply

Counting in 6's (How far can you go?)

True or false? $7 \times 6 = 7 \times 3 \times 2$ $7 \times 6 = 7 \times 3 + 3$ Explain your reasoning.

Can you write the number 30 as the product of 3 numbers? Can you do it in different ways?