



Key Instant Recall Facts

Year 1 - Autumn 2

I know number bonds for each number to 6.

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

$0 + 1 = 1$

$0 + 4 = 4$

$0 + 5 = 5$

$0 + 6 = 6$

$1 + 0 = 1$

$1 + 3 = 4$

$1 + 4 = 5$

$1 + 5 = 6$

$2 + 2 = 4$

$2 + 3 = 5$

$2 + 4 = 6$

$0 + 2 = 2$

$3 + 1 = 4$

$3 + 2 = 5$

$3 + 3 = 6$

$1 + 1 = 2$

$4 + 0 = 4$

$4 + 1 = 5$

$4 + 2 = 6$

$2 + 0 = 2$

$5 + 0 = 5$

$5 + 1 = 6$

$6 + 0 = 6$

$0 + 3 = 3$

$1 + 2 = 3$

$2 + 1 = 3$

$3 + 0 = 3$

Key Vocabulary

What is 3 **add** 2?

What is 2 **plus** 2?

What is 5 **take away** 2?

What is 1 **less than** 4?

They should be able to answer these questions in any order, including missing number questions e.g. $3 + \bigcirc = 5$ or $4 - \bigcirc = 2$.

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. If you would like more ideas, please speak to your child's teacher.

Use practical resources - Your child has one potato on their plate and you give them three more. Can they predict how many they will have now?

Make a poster - We use Numicon at school. You can find pictures of the Numicon shapes here: bit.ly/NumiconPictures - your child could make a poster showing the different ways of making 5.

Play games - You can play number bond pairs online at www.conkermaths.com and then see how many questions you can answer in just one minute.



Key Instant Recall Facts

Year 2 - Autumn 2

I know number bonds to 20.

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

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

Key Vocabulary

What do I **add** to 5 to make 20? What is 20 **take away** 6?
What is 3 **less than** 20?
How many more than 16 is 20?

They should be able to answer these questions in any order, including missing number questions e.g. $19 + \bigcirc = 20$ or $20 - \bigcirc = 8$.

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. If you would like more ideas, please speak to your child's teacher.

Use what you already know - Use number bonds to 10 (e.g. $7 + 3 = 10$) to work out related number bonds to 20 (e.g. $17 + 3 = 20$).

Use practical resources - Make collections of 20 objects. Ask questions such as, "How many more conkers would I need to make 20?"

Make a poster - We use Numicon at school. You can find pictures of the Numicon shapes here: bit.ly/NumiconPictures - your child could make a poster showing the different ways of making 20.

Play games - You can play number bond pairs online at www.conkermaths.com and then see how many questions you can answer in just one minute.



Key Instant Recall Facts

Year 3 - Autumn 2

I know the multiplication and division facts for the 3 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**.

$3 \times 1 = 3$	$1 \times 3 = 3$	$3 \div 3 = 1$	$3 \div 1 = 3$
$3 \times 2 = 6$	$2 \times 3 = 6$	$6 \div 3 = 2$	$6 \div 2 = 3$
$3 \times 3 = 9$	$3 \times 3 = 9$	$9 \div 3 = 3$	$9 \div 3 = 3$
$3 \times 4 = 12$	$4 \times 3 = 12$	$12 \div 3 = 4$	$12 \div 4 = 3$
$3 \times 5 = 15$	$5 \times 3 = 15$	$15 \div 3 = 5$	$15 \div 5 = 3$
$3 \times 6 = 18$	$6 \times 3 = 18$	$18 \div 3 = 6$	$18 \div 6 = 3$
$3 \times 7 = 21$	$7 \times 3 = 21$	$21 \div 3 = 7$	$21 \div 7 = 3$
$3 \times 8 = 24$	$8 \times 3 = 24$	$24 \div 3 = 8$	$24 \div 8 = 3$
$3 \times 9 = 27$	$9 \times 3 = 27$	$27 \div 3 = 9$	$27 \div 9 = 3$
$3 \times 10 = 30$	$10 \times 3 = 30$	$30 \div 3 = 10$	$30 \div 10 = 3$
$3 \times 11 = 33$	$11 \times 3 = 33$	$33 \div 3 = 11$	$33 \div 11 = 3$
$3 \times 12 = 36$	$12 \times 3 = 36$	$36 \div 3 = 12$	$36 \div 12 = 3$

Key Vocabulary

What is 3 **multiplied by** 8?

What is 8 **times** 3?

What is 24 **divided by** 3?

This list includes the most challenging facts but children will need to learn **all** number. They should be able to answer these questions in any order, including missing number questions e.g. $3 \times \bigcirc = 18$ or $\bigcirc \div 3 = 11$.

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 family of the day. If you would like more ideas, please speak to your child's teacher.

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.

Buy one get three free - If your child knows one fact (e.g. $3 \times 5 = 15$), 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. $12 \times 3 = 36$. The answer to the multiplication is 36, so $36 \div 3 = 12$ and $36 \div 12 = 3$



Key Instant Recall Facts

Year 4 - Autumn 2

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**.

$6 \times 1 = 6$	$1 \times 6 = 6$	$6 \div 6 = 1$	$6 \div 1 = 6$
$6 \times 2 = 12$	$2 \times 6 = 12$	$12 \div 6 = 2$	$12 \div 2 = 6$
$6 \times 3 = 18$	$3 \times 6 = 18$	$18 \div 6 = 3$	$18 \div 3 = 6$
$6 \times 4 = 24$	$4 \times 6 = 24$	$24 \div 6 = 4$	$24 \div 4 = 6$
$6 \times 5 = 30$	$5 \times 6 = 30$	$30 \div 6 = 5$	$30 \div 5 = 6$
$6 \times 6 = 36$	$6 \times 6 = 36$	$36 \div 6 = 6$	$36 \div 6 = 6$
$6 \times 7 = 42$	$7 \times 6 = 42$	$42 \div 6 = 7$	$42 \div 7 = 6$
$6 \times 8 = 48$	$8 \times 6 = 48$	$48 \div 6 = 8$	$48 \div 8 = 6$
$6 \times 9 = 54$	$9 \times 6 = 54$	$54 \div 6 = 9$	$54 \div 9 = 6$
$6 \times 10 = 60$	$10 \times 6 = 60$	$60 \div 6 = 10$	$60 \div 10 = 6$
$6 \times 11 = 66$	$11 \times 6 = 66$	$66 \div 6 = 11$	$66 \div 11 = 6$
$6 \times 12 = 72$	$12 \times 6 = 72$	$72 \div 6 = 12$	$72 \div 12 = 6$

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. $6 \times \bigcirc = 72$ or $\bigcirc \div 6 = 7$.

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 family of the day. If you would like more ideas, please speak to your child's teacher.

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.

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

Buy one get three free - If your child knows one fact (e.g. $3 \times 6 = 18$), 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. $12 \times 6 = 72$. The answer to the multiplication is 72, so $72 \div 6 = 12$ and $72 \div 12 = 6$



Key Instant Recall Facts

Year 5 - Autumn 2

I can identify prime numbers up to 20.

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

A prime number is a number with no factors other than itself and one.

*The following numbers are prime numbers: 2, 3,
5, 7, 11, 13, 17, 19*

A composite number is divisible by a number other than 1 or itself.

*The following numbers are composite numbers:
4, 6, 8, 9, 10, 12, 14, 15, 16, 18, 20*

Key Vocabulary

prime number

composite number

factor

multiple

Children should be able to explain how they know that a number is composite.

E.g. 15 is composite because it is a multiple of 3 and 5.

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. If you would like more ideas, please speak to your child's teacher.

It's really important that your child uses mathematical vocabulary accurately. Choose a number between 2 and 20. How many correct statements can your child make about this number using the vocabulary above?

Make a set of cards for the numbers from 2 to 20. How quickly can your child sort these into prime and composite numbers? How many even prime numbers can they find? How many odd composite numbers?



Key Instant Recall Facts

Year 6 - Autumn 2

I can identify common factors of a pair of numbers.

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

The factors of a number are all numbers which divide it with no remainder.

e.g. the factors of 24 are 1, 2, 3, 4, 6, 8, 12, and 24.

The factors of 56 are 1, 2, 4, 7, 8, 14, 28 and 56.

The common factors of two numbers are the factors they share.

e.g. the common factors of 24 and 56 are 1, 2, 4 and 8.

The greatest common factor of 24 and 56 is 8.

Key Vocabulary

factor

common factor

multiple

greatest common factor

Children should be able to explain how they know that a number is a common factor.

e.g. 8 is a common factor of 24 and 56 because $24 = 8 \times 3$ and $56 = 8 \times 7$.

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? If your child is not yet confident with identifying factor pairs of a number, you may want to refer to the Year 5 Summer 2 sheet to practise this first. If you would like more ideas, please speak to your child's teacher.

There are many online games to practise finding the greatest common factor, for example: <http://www.fun4thebrain.com/beyondfacts/gcfsketch.html>

Choose two numbers. Take it in turns to name factors. Who can find the most?

