



KEY INSTANT RECALL FACTS

To develop your child's fluency and mental maths skills, we have decided to introduce KIRFs (Key Instant Recall Facts) throughout school.

KIRFS are a way of helping your child to learn by heart, key facts and information which they need to have instant recall of. KIRFs are a crucial part of a child's learning journey. They underpin a learner's mental development and ensure that they're able to answer maths questions with confidence.

They are particularly useful when calculating: adding; subtracting; multiplying or dividing. They contain number facts such as number bonds and times tables that need constant practice and rehearsal, so children can recall them quickly and accurately. Instant recall of facts helps enormously with mental agility within maths lessons. When children move onto written calculations, knowing these key facts is very beneficial.

For your child to become more efficient in recalling them easily, they need to be practised frequently and for short periods of time. Each half term, children will focus on a Key Instant Recall Fact (KIRF) to practise and learn at home for the half term. They will also be available on our school website under the maths section. The KIRFs include practical ideas to assist your child in grasping the key facts and contain helpful suggestions of ways in which you could make this learning interesting and relevant.

They are not designed to be a time-consuming task and can be practiced anywhere – in the car, walking to school, etc. Regular practice - little and often – helps children to retain these facts and keep their skills sharp. **Throughout the half term, the KIRFs will also be practiced in school and your child's teacher will assess whether they have been retained.**

Over their time at primary school, we believe that - if the KIRFs are developed fully - children will be more confident with number work, understand its relevance, and be able to access the curriculum much more easily.

They will be able to apply what they have learned to a wide range of problems that confront us regularly.



Key Instant Recall Facts

Year 2 – Autumn 1

I know number bonds for each number 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 do not 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.



Key Instant Recall Facts

Year 2 – Autumn 2

I know the multiplication and division facts for the 5 and 10 times tables

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

$5 \times 1 = 5$

$5 \times 2 = 10$

$5 \times 3 = 15$

$5 \times 4 = 20$

$5 \times 5 = 25$

$5 \times 6 = 30$

$5 \times 7 = 35$

$5 \times 8 = 40$

$5 \times 9 = 45$

$5 \times 10 = 50$

$5 \times 11 = 55$

$5 \times 12 = 60$

$5 \div 5 = 1$

$10 \div 5 = 2$

$15 \div 5 = 3$

$20 \div 5 = 4$

$25 \div 5 = 5$

$30 \div 5 = 6$

$35 \div 5 = 7$

$40 \div 5 = 8$

$45 \div 5 = 9$

$50 \div 5 = 10$

$55 \div 5 = 11$

$60 \div 5 = 12$

$10 \times 1 = 10$

$10 \times 2 = 20$

$10 \times 3 = 30$

$10 \times 4 = 40$

$10 \times 5 = 50$

$10 \times 6 = 60$

$10 \times 7 = 70$

$10 \times 8 = 80$

$10 \times 9 = 90$

$10 \times 10 = 100$

$10 \times 11 = 110$

$10 \times 12 = 120$

$10 \div 10 = 1$

$20 \div 10 = 2$

$30 \div 10 = 3$

$40 \div 10 = 4$

$50 \div 10 = 5$

$60 \div 10 = 6$

$70 \div 10 = 7$

$80 \div 10 = 8$

$90 \div 10 = 9$

$100 \div 10 = 10$

$110 \div 10 = 11$

$120 \div 10 = 12$

They should be able to answer these questions in any order, including missing number questions e.g. $10 \times \bigcirc = 80$ or $\bigcirc \div 10 = 6$

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 do not need to practise them all at once; perhaps you could have a fact of the day.

Pronunciation – Make sure that your child is pronouncing the numbers correctly and not getting confused between **thirteen** and **thirty**.

Songs and Chants – You can buy Times Tables CDs or find multiplication songs and chants online. You can also use Education City songs and websites www.timestables.co.uk and www.timestables.me.uk

Apply these facts to real-life situations – How many toes are in your house? What other multiplication and division questions can your child make up?

Key Vocabulary

What is 10
multiplied by 3?

What is 10 **times**
9?

What is 70
divided by 10?



Key Instant Recall Facts

Year 2 – Spring 1

I know the multiplication and division facts for the 2 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.

$2 \times 1 = 2$

$2 \times 2 = 4$

$2 \times 3 = 6$

$2 \times 4 = 8$

$2 \times 5 = 10$

$2 \times 6 = 12$

$2 \times 7 = 14$

$2 \times 8 = 16$

$2 \times 9 = 18$

$2 \times 10 = 20$

$2 \times 11 = 22$

$2 \times 12 = 24$

$2 \div 2 = 1$

$4 \div 2 = 2$

$6 \div 2 = 3$

$8 \div 2 = 4$

$10 \div 2 = 5$

$12 \div 2 = 6$

$14 \div 2 = 7$

$16 \div 2 = 8$

$18 \div 2 = 9$

$20 \div 2 = 10$

$22 \div 2 = 11$

$24 \div 2 = 12$

Key Vocabulary

What is 2 **multiplied by**
7?

What is 2 **times** 9?

What is 12 **divided by** 2?

They should be able to answer these questions in any order, including missing number questions e.g. $2 \times \bigcirc = 8$ or $\bigcirc \div 2 = 6$

Top Tips

The secret to success is practising **little** and **often**. If you would like more ideas, please speak to your child's teacher.

Use what you already know – If your child knows that $2 \times 5 = 10$, they can use this fact to work out that $2 \times 6 = 12$

Test the Parent – Your child can make up their own tricky division questions for you e.g. What is 18 divided by 2? They need to be able to multiply to create these questions.

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



Key Instant Recall Facts

Year 2 – Spring 2

I know the doubles and halves of even numbers to 20 and halves of odd numbers to 9

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

$0 + 0 = 0$	$\frac{1}{2}$ of 0 = 0	
$1 + 1 = 2$	$\frac{1}{2}$ of 2 = 1	$11 + 11 = 22$
$2 + 2 = 4$	$\frac{1}{2}$ of 4 = 2	$12 + 12 = 24$
$3 + 3 = 6$	$\frac{1}{2}$ of 6 = 3	$13 + 13 = 26$
$4 + 4 = 8$	$\frac{1}{2}$ of 8 = 4	$14 + 14 = 28$
$5 + 5 = 10$	$\frac{1}{2}$ of 10 = 5	$15 + 15 = 30$
$6 + 6 = 12$	$\frac{1}{2}$ of 12 = 6	$16 + 16 = 32$
$7 + 7 = 14$	$\frac{1}{2}$ of 14 = 7	$17 + 17 = 34$
$8 + 8 = 16$	$\frac{1}{2}$ of 16 = 8	$18 + 18 = 36$
$9 + 9 = 18$	$\frac{1}{2}$ of 18 = 9	$19 + 19 = 38$
$10 + 10 = 20$	$\frac{1}{2}$ of 20 = 10	$20 + 20 = 40$

$\frac{1}{2}$ of 1 = $\frac{1}{2}$
 $\frac{1}{2}$ of 3 = $1 \frac{1}{2}$
 $\frac{1}{2}$ of 5 = $2 \frac{1}{2}$
 $\frac{1}{2}$ of 7 = $3 \frac{1}{2}$
 $\frac{1}{2}$ of 9 = $4 \frac{1}{2}$

Key Vocabulary

What is **double** 9?

What is **half** of 14?

An odd number is the same as an even number plus one

Top Tips

To help your child understand the concept of halving an odd number, using the phrase, 'an odd number is the same as an even number plus one', can help them visualise the steps.

3 is the same as 2 plus 1, your child understands that half of 2 is 1 and half of 1 is $\frac{1}{2}$ so they can add the two halves together to make $2\frac{1}{2}$.

5 is the same as 4 plus 1, half of 4 is 2 and half of 1 is $\frac{1}{2}$, when they add the two halves they see that half of five is $2\frac{1}{2}$.

This understanding secures their knowledge of how to answer trickier halvings i.e. 19 is the same as 18 plus one, half of 18 is 9 and half of one is $\frac{1}{2}$, when they add the two halves together they see that half of 19 is $9\frac{1}{2}$.

Ping Pong – In this game, the parent says 'Ping,' and the child replies 'Pong.' Then the parent says a number and the child doubles it. For a harder version, the adult can say, 'Pong.' The child replies, 'Ping,' and then halves the next number given.



Key Instant Recall Facts

Year 2 – Summer 1

I can sequence multiples 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.

2, 4, 6, 8, 12, 14, 16, 18, 20, 22, 24

3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36

6, 12, 18, 24, 30, 36, 42, 48, 54, 60, 66, 72

5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60

10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120

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 do not 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.

A multiple is the result of when you multiply a number by a whole number (an integer) i.e. multiples of 5 are 5, 10, 15 etc (1×5 , 2×5 , 3×5 etc).

Your child will see that the multiples of 6 are double the multiples of 3 and the same with the multiples of 5 and 10.

Noticing patterns with multiples can also help recall so discuss what patterns your child can see.

Key Vocabulary

When I am counting in 2's, which number **lies between** 12 and 16?

When I am counting in 5's, which number **lies between** 50 and 60?

Which number is missing from my **sequence**:
3, 6, 9, ...?

Which **multiple** of 6 comes **before** 18 when I am counting in 6's?

Which **multiple** of 3 comes **after** 18? How do you know?



Key Instant Recall Facts

Year 2 – Summer 2

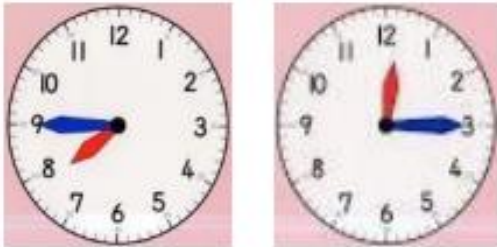
I can tell time using quarter past and quarter to

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

Children need to be able to tell the time using a clock with hands.

This target can be broken down into several steps.

- I can tell the time to the nearest hour.
- I can tell the time to the nearest half hour.
- I can tell the time to the nearest quarter hour.



Key Vocabulary

Twelve **o'clock**

Half past two

Quarter past three

Quarter to nine

Top Tips

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

Talk about time – Discuss what time things happen. When does your child wake up? What time do they eat breakfast? Make sure that you have an analogue clock visible in your house or that your child wears a watch with hands.

Ask your child the time regularly – You could also give your child some responsibility for watching the clock: 'The cakes need to come out of the oven at quarter past four.' 'We need to leave the house at half past eight.'

