



Highfield Primary School

Key Instant Recall Facts (KIRFs)

To develop your child's fluency and mental maths skills, we are introducing KIRFs 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 designed to support the development of mental maths skills that underpin much of the maths work in our school. 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 practise and rehearsal, so children can recall them quickly and accurately.

Instant recall of facts helps enormously with mental agility in 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 and each child will receive a copy to keep at home. 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 practised 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 practised 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 learnt to a wide range of problems that confront us regularly.



Highfield Primary School

Key Instant Recall Facts

Year 2 - Autumn 1

I can count, read and write to 100, forwards and backwards and from any given number.
I can recall number bonds to 20
I can count in 2's, 5's, 10's & 3's

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

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Key Vocabulary

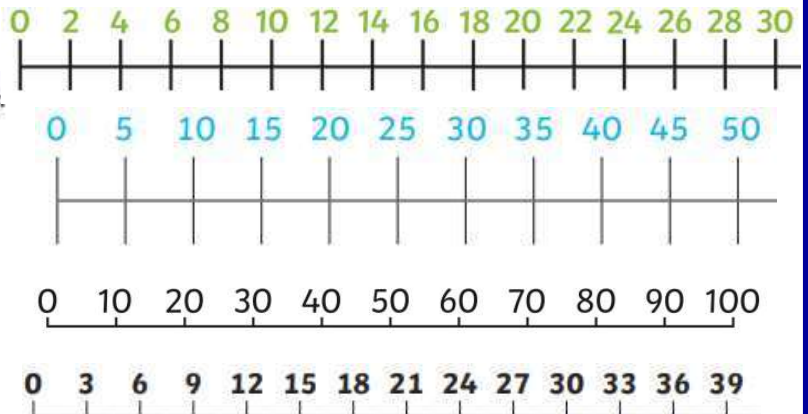
- Greater Than - Place Value
- Less Than - Number bond
- Tens - 2s, 5s, 10s
- Ones - add, total
- Teens - altogether

number bonds to 10:

- 0 + 10 = 10
- 1 + 9 = 10
- 2 + 8 = 10
- 3 + 7 = 10
- 4 + 6 = 10
- 5 + 5 = 10
- 6 + 4 = 10
- 7 + 3 = 10
- 8 + 2 = 10
- 9 + 1 = 10
- 10 + 0 = 10

number bonds to 20:

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



Top Tips...

- Use objects to consider the bonds in a practical way.
- Look at the patterns with both objects and numbers for number bonds e.g. as one number increases the other one decreases.
- <https://www.topmarks.co.uk/maths-games/hit-the-button> - practise number bonds to 10/20
- Practise counting in 2s, 5s and 10s practically - how many yellow pieces of lego are there? Shopping - we need 5 lots of carrots which come in 2s, how many will we have altogether?



Highfield Primary School

Key Instant Recall Facts


Year 2 - Autumn 2

I know the multiplication and division facts for the 2 times table.
(up to 12×2)



Children should know their two times table by the end of this half term. They should be able to build on their knowledge of counting in twos and be able to see a pattern in the two times table. They should begin to group in twos and understand the concept of sharing between 2; this will help them develop both multiplication and division facts for the two times table.

$\times 2$

$1 \times 2 = 2$
 $2 \times 2 = 4$
 $3 \times 2 = 6$
 $4 \times 2 = 8$
 $5 \times 2 = 10$
 $6 \times 2 = 12$
 $7 \times 2 = 14$
 $8 \times 2 = 16$
 $9 \times 2 = 18$
 $10 \times 2 = 20$
 $11 \times 2 = 22$
 $12 \times 2 = 24$




Divide by 2

There are ____ shoes altogether.
 We put 2 in each box.
 There are ____ groups.

Ring each pair of flip-flops.



There are ____ flip-flops in total.
 Each pair has ____ flip-flops.
 There are ____ pairs of flip-flops.

Key Vocabulary

- Times
- Multiplied by
- Lots of
- Groups of
- Divided by
- Shared
- Arrays
- Rows
- Columns
- Even numbers

How many wheels altogether?



$2 + 2 + 2 + 2 + 2 =$

Top Tips...

- Talk about pairs and group objects in twos.
- Use real life scenarios e.g. I've got 8 eggs and there are 4 people for dinner, how many eggs can each person have?
- Discuss even numbers. Look for patterns in the 2 times table - numbers end in 2, 4, 6, 8 or 0
- Practise times tables <https://www.topmarks.co.uk/maths-games/hit-the-button>



Highfield Primary School

Key Instant Recall Facts

Year 2 - Spring 1

I know doubles and halves of numbers to 20.

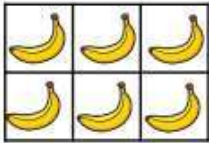
I can recognise odd and even numbers.

By the end of this half term children should make and add equal groups and multiply both by repeated addition and using the multiplication symbol. They should recognise odd and even numbers and know their 2, 5 and 10 times table. They will begin to divide by 2, 5 and 10 by grouping and sharing.

Key Vocabulary

- Double
- Half
- Multiplication
- Division
- Sharing & Grouping

Complete the number sentences to describe the arrays.



2×3 and $__ \times __$

Dora has 10 biscuits.



She wants to share them equally at her party.

How many people could be at the party?

- $1 \times 5 = 5$
- $2 \times 5 = 10$
- $3 \times 5 = 15$
- $4 \times 5 = 20$
- $5 \times 5 = 25$
- $6 \times 5 = 30$
- $7 \times 5 = 35$
- $8 \times 5 = 40$
- $9 \times 5 = 45$
- $10 \times 5 = 50$
- $11 \times 5 = 55$
- $12 \times 5 = 60$

Complete the table by doubling each number.

1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

What patterns do you notice?

Top Tips...

Count regularly with your children in 2's, 5's and 10's.

Practise recall with 2, 5 and 10 times tables

Ask practical questions about sharing things equally. For example; there are 4 apples in this packet, how many is that each?

Practise times tables and doubles / halves

<https://www.topmarks.co.uk/maths-games/hit-the-button>



Highfield Primary School

Key Instant Recall Facts

Year 2 - Spring 2

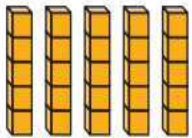
I know the multiplication and division facts for the 2-, 5- and 10-times table.

Count in 2s, 5s and 10s forwards and Backwards to 100. Using \div and \times symbol correctly. By the end of the term children should Be able to recognise the multiplication is the inverse (opposite) of division.

Use images and cubes to solve multiplication

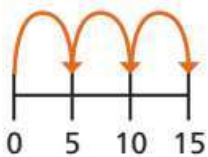


$$\square \times \square = \square$$



$$5 \times 5 = \quad 25 \div 5 =$$

Or jumps on a number line (forwards for multiplication and backwards for division).



$\underline{\quad} \times 5 = 15$ How many jumps of 5s or groups of 5s make 15.

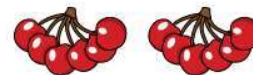
Key Vocabulary

- multiples
- sharing and group
- equal groups
- set and groups of
- repeated addition and subtraction.

How many stars are there?



Using the arrays and images to help to solve multiplication problems.



How many cherries altogether? Match the division and multiplication with the image

$$12 \div 2 = 6 \quad 6 \times 2 = 12$$



$$2 \times 5 = 10 \quad 10 \div 2 = 5 \quad 10 \div 5 = 2$$

Top Tips...

Count regularly with your children in 2's, 5's and 10's using a 100 square and number line.

Play <https://www.topmarks.co.uk/number-facts/number-fact-families>

Practise recall with 2, 5 and 10 times tables

Sharing into equal groups or set with practical objects.

Use a or make a number line to show repeated subtraction or division.



Highfield Primary School

Key Instant Recall Facts

Year 2 - Summer 1

I know addition and subtraction facts for multiples of 10 to 100

Children should be able to count in 10s.
They should use range of number presentations to show number bonds to 10, 20 and 100.

How many other ways can you think of to represent the number bonds to 90 using multiples of 10?

Key Vocabulary

- Bonds
- Number facts
- Number presentation
- Related facts
- Number pairs
- Known facts

$0 + 100 = \square$

$10 + \square = \square$

$\square + 80 = \square$

$\square + 70 = \square$

$\square + \square = 100$

$\square + \square = \square$



Top Tips...

It will be helpful if children have experience of number bonds within 10.
Make One Hundred: The children explore making a bond of ten and a similar bond of 100.

They look for patterns, explain what they notice and demonstrate their thinking with different presentations.



Highfield Primary School

Key Instant Recall Facts

Year 2 - Summer 2

I can tell the time to o'clock, half past, quarter to and quarter past.

Children should be able to tell the time to o'clock and half past. They should use their 5 times table to help with telling time in 5 minute intervals.

O'Clock

Half Past

Quarter To

Quarter Past

Key Vocabulary

- Seconds
- Minutes
- Hours
- O'clock
- Half Past
- Quarter to
- Quarter Past



Top Tips...

Incorporate time telling into your daily routine. Ask children to tell you time at regular intervals. Encourage questions such as "What time is dinner tonight?" "How long can I play on my tablet?" "How many hours until I need to wake up for school?"