



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.



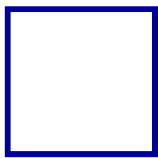
Highfield Primary School

Key Instant Recall Facts

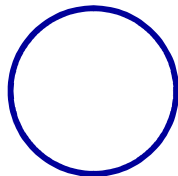
Reception - Autumn 1

Name simple shapes, recall the numbers to 10 and compare two numbers by saying which is more or fewer.

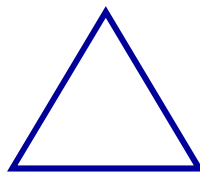
By the end of this half term, children should know the key words below. The aim is for them to recall these words instantly.



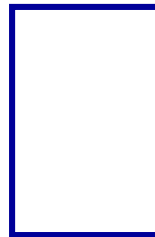
square



circle



triangle

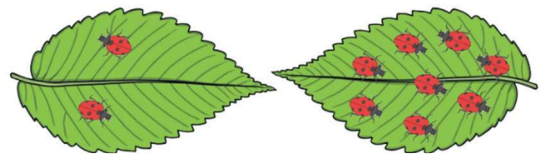
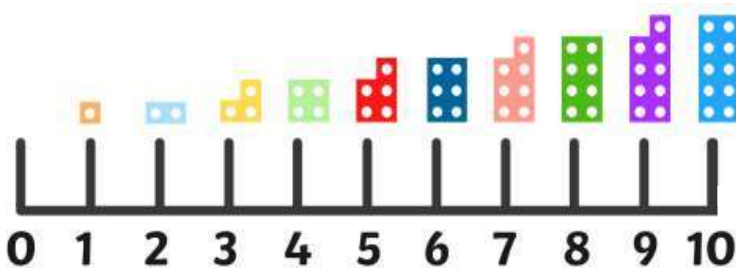


rectangle

Key Vocabulary

- 2D shape
- square
- circle
- triangle
- rectangle
- number
- more
- fewer

The children should also be able to say the numbers to 10 in order and also be able to compare the size of 2 numbers within 10.



2 is fewer than 8
8 is more than 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 word/shape of the day. They could count their steps or complete dot to dot puzzles.

<https://www.topmarks.co.uk/early-years/shape-monsters> - Match the shape

<https://tvokids.com/preschool/games/caterpillar-count> - Find the next number

<https://www.topmarks.co.uk/learning-to-count/ladybird-spots> - Ladybird counting



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Key Instant Recall Facts

Reception - Autumn 2

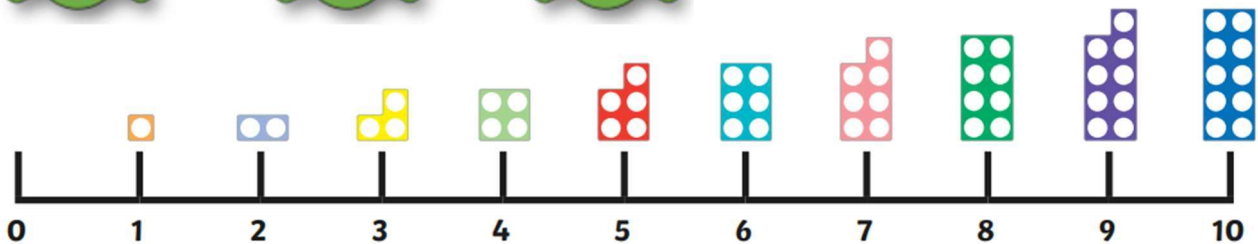
Say one more and one less than a given number.

The children need to understand the 'one more than/one less than' relationship between consecutive numbers.

The concept of one less is explored in many stories/rhymes such as 'Five Little Ducks' and 'Ten Green Bottles'.

Key Vocabulary

- One more - Add
- One less - Subtract



Five Little Ducks

Five little ducks went swimming one day
Over the hill and far away
Mother duck said, "Quack quack quack quack"
And only four little ducks came back!

Four little ducks went swimming one day
Over the hill and far away
Mother duck said, "Quack quack quack quack"
And only three little ducks came back!

Three little ducks went swimming one day
Over the hill and far away
Mother duck said, "Quack quack quack quack"
And only two little ducks came back!

Two little ducks went swimming one day
Over the hill and far away.
Mother duck said, "Quack quack quack quack"
And only one little duck came back!

One little duck went swimming one day
Over the hill and far away
Mother duck said, "Quack quack quack quack"
And all her five little ducks came back!



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? They could count their steps and talk about what one less would be and what one more would be. Using practical resources (counters, beads etc) will help build the children's understanding.

One more song: <https://www.youtube.com/watch?v=Du6JHupzwVo>

One less song: <https://www.youtube.com/watch?v=D3b-kcK3Eg8>

Topmarks -

<https://www.topmarks.co.uk/maths-games/robot-more-or-less>

<https://www.topmarks.co.uk/learning-to-count/chopper-squad>

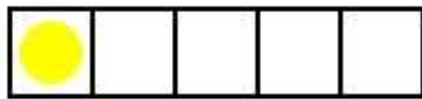


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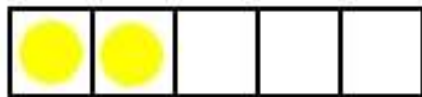
Key Instant Recall Facts

Reception - Spring 1

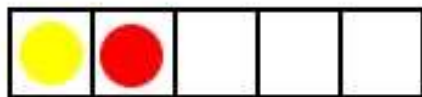
Partition numbers to 5 into two groups (Number bonds within 5)



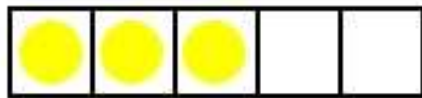
$1 + 0$



$2 + 0$



$1 + 1$



$3 + 0$



$2 + 1$



$4 + 0$



$3 + 1$



$2 + 2$

Key Vocabulary

- Number
- Partition
- Group
- Number bond



$5 + 0$



$4 + 1$



$3 + 2$

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

You can play the interactive game - [Ways to Make - 4-6 year olds - Topmarks](#)

- Use objects to consider the bonds in a practical way.
- Look at patterns for both objects and numbers (as one increases, the other decreases).
- Practise with the numbers in order and chosen randomly.

Playing cards: Take out the picture cards from the deck of cards. Include the jokers as 'zero'. You can:

- Play snap by matching the number bonds.
- Play the 'memory game' to find matching number bonds.



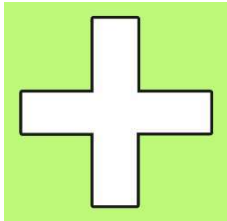
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Key Instant Recall Facts

Reception - Spring 2

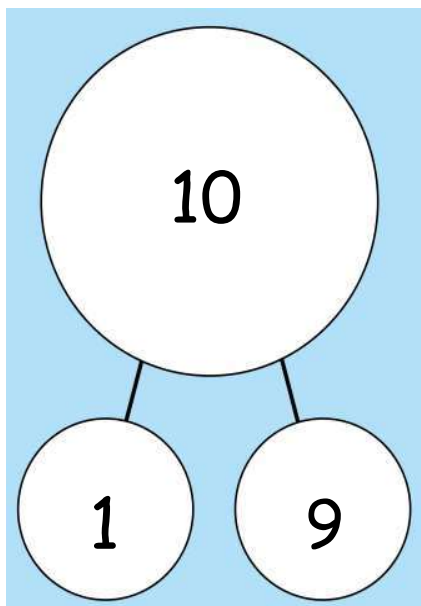
I know pairs of numbers that add to make 10.

By the end of this half term, children should be able to say which two numbers can be added to ten with increasingly rapid recall. Children should begin to use a systematic approach when recalling and recording all number bonds to 10.



Key Vocabulary

- add
- equals
- number bond
- addition
- altogether
- part-whole model
- plus
- pair



Number Bond to 10 Place Mat

A grid of 12 cards, each showing a number bond to 10. Each card features a ten-frame with colored dots representing the numbers. Below each ten-frame is the corresponding equation.

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

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. Here are some useful links:

<https://www.youtube.com/watch?v=ID9tjBUiXs0&t=65s>

<https://www.youtube.com/watch?v=ch7KzI3n2Zk&t=75s>

https://www.mathplayground.com/number_bonds_10.html

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

<https://www.topmarks.co.uk/maths-games/mental-maths-train>

<https://www.ictgames.com/mobilePage/partPartWhole/index.html>



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Key Instant Recall Facts

Reception - Summer 1

I know some odd and even numbers to 10.

Children should know the odd and even numbers to 10. They should begin to understand that even numbers can be shared equally between 2 whereas odd numbers cannot.

Key Vocabulary

- count
- odd
- even
- share equally
- number name



odd

1 3 5 7 9

even

0 2 4 6 8 10

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. Here are some useful links:

<https://www.bbc.co.uk/bitesize/topics/zknsqk7/articles/zt4jj6f#zctyycw>

Have a go at these odd and even games:

<https://www.topmarks.co.uk/learning-to-count/coconut-odd-or-even>

<https://www.sheppardsoftware.com/math/early-math/odd-even-fruit-splat-game/>



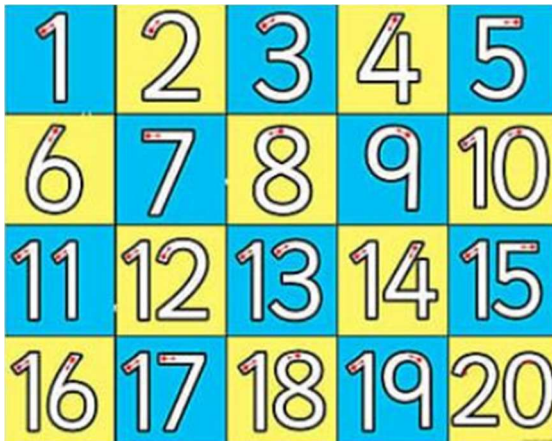
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Key Instant Recall Facts

Reception - Summer 2

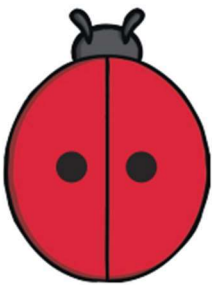
I can count, read and write numbers to 20.
I can automatically recall double facts up to $5 + 5$.

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



Key Vocabulary

- | | |
|------------|-------------|
| - eleven | - sixteen |
| - twelve | - seventeen |
| - thirteen | - eighteen |
| - fourteen | - nineteen |
| - fifteen | - twenty |
| - double | - same |
| - add | - equals |



$$1 + 1 = 2$$



$$2 + 2 = 4$$



$$3 + 3 = 6$$



$$4 + 4 = 8$$



$$5 + 5 = 10$$

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 practical resources -

- Counting objects around the home finding methods of counting accurately, e.g moving each object as it is counted.
- Looking for numbers up to 20 around the home and when you are out and about.
- Count objects around the home and then write the correct numeral to match the quantity counted. Repeat with other numbers. Discuss which number is the biggest/smallest or is more/less than the other. How do you know?

Play games - <https://www.topmarks.co.uk/ordering-and-sequencing/caterpillar-ordering>

<https://www.topmarks.co.uk/maths-games/5-7-years/sequencing-numbers>