



Maths

Key Instant Recall Facts

To help develop children's fluency in Mathematics, each half term we ask them to learn Key Instant Recall Facts (KIRFs).

The lists of KIRFs have been created to align with the National Curriculum and the end of year expectations for each year group. Children will be taught the foundations and necessary Maths in lessons beforehand, introducing them to specific visual models to support their understanding.

We expect the majority of children within a year group to be working towards these targets. Children should know these thoroughly and be able to recall the facts instantly for their year group. By helping to develop these skills, your child will be more able to access other areas of the Maths curriculum such as calculation methods, problem solving and reasoning. If your child is struggling to recall facts, please concentrate on a smaller number and practise more frequently.

Thank you for your support,
Miss Cole

Headteacher



Key Instant Recall Facts

Reception – Autumn 1

I can name numbers in order to 10 .

I can compare 2 numbers by saying which is more or less.

By the end of this half term, children should be able to **say** the numbers to 10 **in order** and also be able to compare the size of 2 numbers within 10.

The aim is to be recall the numbers **instantly** and know which number is larger/smaller **instantly**.

Children should say the following number names in order:

0 1 2
3 4 5
6 7 8
9 10

They should also know which number is larger/smaller out of 2 numbers given to them:

e.g. **3 and 7**

6 and 1

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?

Perhaps you could have number cards that you can show your child and they say which number is larger or smaller. Maybe use a number line to help compare the size of numbers.



Key Instant Recall Facts

Reception – Autumn 2

I can recognise quantities up to 5 without counting (subitise)

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

- ▶ Children should be able to look at a group of objects and be able to recognise the quantity immediately.
- ▶ They may do this by recognising the full quantity or by recognising the quantities within in e.g., seeing a 4 and a 1 and thus knowing this is 5.

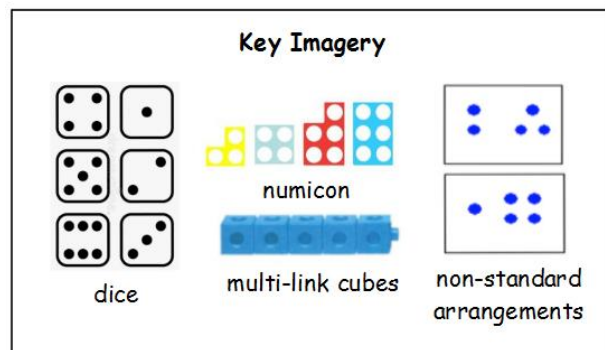
Key Vocabulary

What number do you see?

What numbers can you see hidden inside this number?

I see 5.

I see a 3 and a 2 which is 5.



Top Tips

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Use practical resources – Play games using a dice, play dominoes and ask your child what the numbers are, use a dice to determine how many hops on a hopscotch.

Use your fingers – play a game of rock, paper, scissors, but instead you and your child have to match the number of fingers shown. Can your child identify your number immediately?

Play hidden quantity games – hide one, two and three objects under 3 identical cups and swap them around. Can your child follow the number 4? Once the cup is lifted, can they subitise the number of objects underneath?



Key Instant Recall Facts

Reception – Spring 1

I know 1 more and 1 less than any given number up to 10.

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

$0 + 1 = 1$

$1 + 1 = 2$

$1 - 1 = 0$

$2 + 1 = 3$

$2 - 1 = 1$

$3 + 1 = 4$

$3 - 1 = 2$

$4 + 1 = 5$

$4 - 1 = 3$

$5 + 1 = 6$

$5 - 1 = 4$

$6 + 1 = 7$

$6 - 1 = 5$

$7 + 1 = 8$

$7 - 1 = 6$

$8 + 1 = 9$

$8 - 1 = 7$

$9 + 1 = 10$

$9 - 1 = 8$

$10 + 1 = 11$

$10 - 1 = 9$

Key Vocabulary

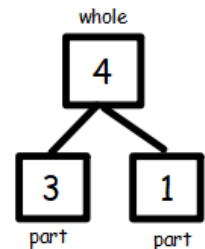
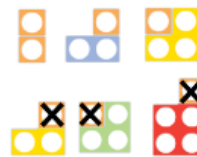
What is 1 more than 6?

What is 1 less than 10?

Key Imagery:

Prove using part/whole model:

Prove using numicon:



Top Tips

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Use practical resources – Your child has 5 carrots on their plate – how many would they have if you gave them one more? How many would they have if you took one away?



Key Instant Recall Facts

Reception – Spring 2

I can count, read and order numbers 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**.

Children should be able to count (in order) and read from 0 to 20 in numerals (not words).

Children should know what number comes next e.g. 17 comes after 16.

Children should know what number comes before a number e.g. 12 comes before 13.

Key Vocabulary

Numbers 1 – 20

What number comes before 10?

What number comes after 19?

Top Tips

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Use practical resources :

- Count your toys as you put them away.
- Have a go at a number treasure hunt around the house. Once you have found all the numbers, can you peg them up in order on the washing line?
- Put number stickers on your toy cars. Can you line them up in order now? If one is taken away, can you spot what number should be in the gap?



Key Instant Recall Facts

Reception – Summer 1

I know number bonds to 5.

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

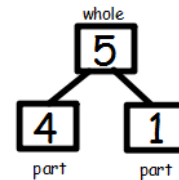
$$\begin{array}{ll} 0 + 5 = 5 & 2 + 3 = 5 \\ 5 + 0 = 5 & 3 + 2 = 5 \\ 5 - 0 = 5 & 5 - 3 = 2 \\ 5 - 5 = 0 & 5 - 2 = 3 \\ \\ 1 + 4 = 5 \\ 4 + 1 = 5 \\ 5 - 4 = 1 \\ 5 - 1 = 4 \end{array}$$

Key Vocabulary

What is 3 **add** 2?
What is 4 **plus** 1?
What is 5 **subtract** 2?
What is 1 **less than** 5?
What is the **whole**?
What are the **parts**?

Key Imagery:

Prove using part/whole model:
E.g. $4 + 1 = 5$



They should be able to answer these questions in any order, including missing number questions

e.g. $3 + \bigcirc = 5$ or $5 - \bigcirc = 3$.

Top Tips

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Use practical resources – Your child has three potatoes on their plate and you give them two 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.org and then see how many questions you can answer in just one minute.

You can also play Numbots at <https://play.numbots.com/> which practices addition and subtraction. We are subscribed as a school and your child should already have a log-in.



Key Instant Recall Facts

Reception – Summer 2

I know 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**.

$$0 + 0 = 0$$

$$1 + 1 = 2$$

$$2 + 2 = 4$$

$$3 + 3 = 6$$

$$4 + 4 = 8$$

$$5 + 5 = 10$$

Key Vocabulary

What is double 2?

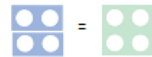
What is double 5?

Key Imagery:

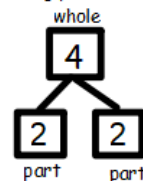
Prove using an array:
e.g. $4 + 4 = 8$



Prove using numicon:



Prove using part/whole model:



Top Tips

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Play Ping Pong

- The adult says 'ping' and the child replies with 'pong'. Then the adult says a number and the child doubles it in response.