



Key Instant Recall Facts

Year 5

Autumn 1

I know multiplication and related division facts (up to 12x12) and these divisibility rules:

A number is divisible by 2 if its last digit is 0, 2, 4, 6 or 8.

A number is divisible by 3 if the sum of all its digits is divisible by 3.

A number is divisible by 4 if its last two digits is divisible by 4.

A number is divisible by 5 if its last digit is 0 or 5.

Children who have already mastered their times tables should apply this knowledge to answer questions including decimals e.g. $0.7 \times \bigcirc = 4.2$ or $\bigcirc \div 60 = 0.7$.

Speed Challenge – Take two packs of playing cards and remove the kings. Turn over two cards and ask your child to multiply the numbers together (Ace = 1, Jack = 11, Queen = 12). How many questions can they answer correctly in 2 minutes? Practise regularly and see if they can beat their high score.

Key Vocabulary

What is 12 multiplied by 6?

What is 7 times 8?

What is 84 divided by 7?

Practice number facts online:

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



Key Instant Recall Facts

Year 5

Autumn 2

I can recall 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?

Practice number facts online:

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Key Instant Recall Facts

Year 5

Spring 1

I can recall metric conversions.

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

1 kilogram = 1000 grams

1 kilometre = 1000 metres

1 metre = 100 centimetres

1 metre = 1000 millimetres

1 centimetre = 10 millimetres

1 litre = 1000 millilitres

They should also be able to apply these facts to answer questions.

e.g. How many metres in $1\frac{1}{2}$ km?

Top Tips

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Look at the prefixes – Can your child work out the meanings of kilo-, centi- and milli-? What other words begin with these prefixes?

Be practical – Do some baking and convert the measurements in the recipe.

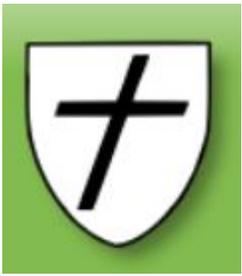
How far? – Calculate some distances using unusual measurements.

How tall is your child in mm?

How far away is London in metres?

Practice number facts online:

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



Key Instant Recall Facts

Year 5

Spring 2

I know decimal number bonds to 1 and 10.

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

Some examples:

$0.6 + 0.4 = 1$

$3.7 + 6.3 = 10$

$0.4 + 0.6 = 1$

$6.3 + 3.7 = 10$

$1 - 0.4 = 0.6$

$10 - 6.3 = 3.7$

$1 - 0.6 = 0.4$

$10 - 3.7 = 6.3$

$0.75 + 0.25 = 1$

$4.8 + 5.2 = 10$

$0.25 + 0.75 = 1$

$5.2 + 4.8 = 10$

$1 - 0.25 = 0.75$

$10 - 5.2 = 4.8$

$1 - 0.75 = 0.25$

$10 - 4.8 = 5.2$

Key Vocabulary

What do I **add** to 0.8 to make 1?

What is 1 **take away** 0.06?

What is 1.3 **less than** 10?

How many more than 9.8 is 10?

What is the **difference** between 0.92 and 10?

This list includes some examples of facts that children should know. They should be able to answer questions including missing number questions e.g. $0.49 + \bigcirc = 10$ or $7.2 + \bigcirc = 10$.

Top Tips

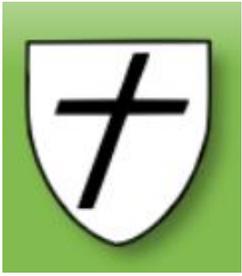
The secret to success is practising little and often. Use time wisely. Can you practise these KIRFs while walking to school or during a car journey? You don't need to practise them all at once: perhaps you could have a fact of the day.

Buy one get three free - If your child knows one fact (e.g. $8 + 5 = 13$), can they tell you the other three facts in the same fact family?

Use number bonds to 10 - How can number bonds to 10 help you work out number bonds to 100?

Practice number facts online:

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



Key Instant Recall Facts

Year 5

Summer 1

I can recall square numbers up to 122 and their square roots.

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

$$1^2 = 1 \times 1 = 1$$

$$2^2 = 2 \times 2 = 4$$

$$3^2 = 3 \times 3 = 9$$

$$4^2 = 4 \times 4 = 16$$

$$5^2 = 5 \times 5 = 25$$

$$6^2 = 6 \times 6 = 36$$

$$7^2 = 7 \times 7 = 49$$

$$8^2 = 8 \times 8 = 64$$

$$9^2 = 9 \times 9 = 81$$

$$10^2 = 10 \times 10 = 100$$

$$11^2 = 11 \times 11 = 121$$

$$12^2 = 12 \times 12 = 144$$

$$\sqrt{1} = 1$$

$$\sqrt{4} = 2$$

$$\sqrt{9} = 3$$

$$\sqrt{16} = 4$$

$$\sqrt{25} = 5$$

$$\sqrt{36} = 6$$

$$\sqrt{49} = 7$$

$$\sqrt{64} = 8$$

$$\sqrt{81} = 9$$

$$\sqrt{100} = 10$$

$$\sqrt{121} = 11$$

$$\sqrt{144} = 12$$

Key Vocabulary

What is 8 squared?

What is 7 multiplied by itself?

What is the square root of 144?

Is 81 a square number?

Children should also be able to recognise whether a number below 150 is a square number or not.

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.

Cycling Squares – At <http://nrich.maths.org/1151> there is a challenge involving square numbers. Can you complete the challenge and then create your own examples?

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

Practice number facts online:

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



Key Instant Recall Facts

Year 5

Summer 2

I can read, write and convert time between analogue and digital 12 and 24-hour clocks

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

Converting from 24 hour times to 12 hour times

The following simple steps will help you change a 24 hour time to a 12 hour time with 'am' and 'pm'.

- If the hour is exactly 12, then simply label it as a pm time.
- If the hour is 00, then change it to 12 and label it as an am time.
- If the hour is greater than 12, then simply subtract 12 from the hour and label it as a pm time.
- Otherwise, simply label it as an am time and take away any leading zeros.

The minutes and seconds never change when changing between 24 hour and 12 hour times.

Examples

14:36 = 2:36pm	02:12 = 2:12am
09:24 = 9:24am	17:48 = 5:48pm
00:45 = 12:45am	12:15 = 12:15pm
20:36 = 8:36pm	23:56 = 11:56pm

Practise telling the time online at:

https://mathsframe.co.uk/en/resources/resource/116/telling_the_time#