Key Instant Recall Facts

Year 5 – Autumn, Half Term 1

I know all my times tables facts to 12x12

Example fact family:

7 x 8 = 56
8 x 7 = 56
56 ÷ 8 = 7
56 ÷ 7 = 8

Example missing number questions:

7 x ___ = 56
56 = ___ x 7
___ = 8 x 7

56 ÷ ___ = 7
56 ÷ 8 = ___
___ ÷ 7 = 8

Key Vocabulary

What is 8 **times** 4?

What is 8 **multiplied** by 4?

What is 16 **divided** by 8?

What, **multiplied by** 7 equals 56?

56 is what **times** 7?

Name a **factor pair** of 56?

Being able to answer missing number and division questions helps children be able to recognise factor pairs, such as for the above example - 'Name the factor pairs of 56' (7 x 8, also 14 x 4, 28 x 2, 56 x 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? 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.

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.

Online games – There are many games online which can help children practise their multiplication and division facts. We encourage children to use Times Table Rockstars or you can search for 'Hit the Button'.

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

Key Instant Recall Facts

Year 5 – Autumn, Half Term 2

I know decimal bonds to 1 and 10

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 + ◯ = 10 or 7.2 + ◯ = 10.

Top Tips

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Buy one get three free - If your child knows one fact (e.g. 0.37 + 0.63 = 1), 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?

Play games – There are decimal place value and number bond activities at studyzone.tv.

Key Instant Recall Facts

Year 5 – Spring, Half Term 1

I can recall metric conversions

Length **1 kilometre = 1000 metres**
1 metre = 100 centimetres
1 metre = 1000 millimetres
1 centimetre = 10 millimetres

Mass **1 kilogram = 1000 grams**

Volume **1 litre = 1000 millilitres**

Key Vocabulary

What is 9 **times** 3?

What are 9 **groups** of 3?

What is 9, **3 times**?

What is 3 **multiplied** by 9?

What is 27 **divided** by 3?

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

- How many metres in 1.6 km?
- How many kilometres in 2,300m?
- How many centimetres is 7.25m?
- How many grams in 2.3kg?
- 4 litres is how many millilitres?

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 or crafts, using and converting the measurements.

How far? – Calculate some distances using unusual measurements. How tall is your child in mm? How far away is school in meters and cms?

Key Instant Recall Facts

Year 5 – Spring, Half Term 2

I can identify prime numbers up to 20

A **prime number** is a number with no factors other than itself and one. In multiplication and division, they are the building blocks of all other whole numbers. 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

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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?

Key Instant Recall Facts

Year 5 – Summer, Half Term 1

I know square numbers and square roots to 12

$1^2 = 1 \times 1 = 1$	$\sqrt{1} = 1$
$2^2 = 2 \times 2 = 4$	$\sqrt{4} = 2$
$3^2 = 3 \times 3 = 9$	$\sqrt{9} = 3$
$4^2 = 4 \times 4 = 16$	$\sqrt{16} = 4$
$5^2 = 5 \times 5 = 25$	$\sqrt{25} = 5$
$6^2 = 6 \times 6 = 36$	$\sqrt{36} = 6$
$7^2 = 7 \times 7 = 49$	$\sqrt{49} = 7$
$8^2 = 8 \times 8 = 64$	$\sqrt{64} = 8$
$9^2 = 9 \times 9 = 81$	$\sqrt{81} = 9$
$10^2 = 10 \times 10 = 100$	$\sqrt{100} = 10$
$11^2 = 11 \times 11 = 121$	$\sqrt{121} = 11$
$12^2 = 12 \times 12 = 144$	$\sqrt{144} = 12$

Key Vocabulary

What is 8 **squared**?

What is 7 **multiplied by itself**?

hat is the **square root** of 144?

Is 81 a **square number**?

By extension, 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. If you would like more ideas, please speak to your child's teacher?

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 pic-ture stories to help children remember.

Key Instant Recall Facts

Year 5 – Summer, Half Term 2

I can find factor pairs of a number

Children should now know all multiplication and division facts up to 12 × 12. When given a number in one of these times tables, they should be able to state a factor pair which multiply to make this number. Below are some examples:

24 = 4 × 6 = 8 × 3 = 2 x 12

12 = 2 x 6 = 3 x 4

54 = 9 × 6

25 = 5 × 5

84 = 7 × 12

Key Vocabulary

What is 5 **multiplied by** 10?

What is 10 **times** 0.9?

What is 700 **divided by** 70?

hundreds, tens, ones,

tenths, hundredths

These are just some examples. Children should be able to answer these, to build their confidence in place value for larger numbers to come. Including missing number questions as well.

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 family of the day. If you would like more ideas, please speak to your child's teacher.

Play games - Children should continue to use Times Table Rockstars. There are other online resources to find factor pairs and prime factors.

Think of the question – One player thinks of a times table question (e.g. 4 × 12) and states the answer. The other player has to guess the original question.

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