

Year 5 – Term 1

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:

$$0.6 + 0.4 = 1 \quad 3.7 + 6.3 = 10$$

$$0.4 + 0.6 = 1 \quad 6.3 + 3.7 = 10$$

$$1 - 0.4 = 0.6 \quad 10 - 6.3 = 3.7$$

$$1 - 0.6 = 0.4 \quad 10 - 3.7 = 6.3$$

$$0.75 + 0.25 = 1 \quad 4.8 + 5.2 = 10$$

$$0.25 + 0.75 = 1 \quad 5.2 + 4.8 = 10$$

$$1 - 0.25 = 0.75 \quad 10 - 5.2 = 4.8$$

$$1 - 0.75 = 0.25 \quad 10 - 4.8 = 5.2$$

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

- 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?

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?

Year 5 – Term 2

I can multiply and divide single-digit numbers by 10 and 100.

By the end of this half term, children should know the following facts. The aim is for

them to recall these facts instantly.

$7 \times 10 = 70$

$30 \times 10 = 300$

$0.8 \times 10 = 8$

$10 \times 7 = 70$

$10 \times 30 = 300$

$10 \times 0.8 = 8$

$70 \div 7 = 10$

$300 \div 30 = 10$

$8 \div 0.8 = 10$

$70 \div 10 = 7$

$300 \div 10 = 30$

$8 \div 10 = 0.8$

$6 \times 100 = 600$

$40 \times 100 = 4000$

$0.2 \times 10 = 2$

$100 \times 6 = 600$

$100 \times 40 = 4000$

$10 \times 0.2 = 2$

$600 \div 6 = 100$

$4000 \div 40 = 100$

$2 \div 0.2 = 10$

$600 \div 100 = 6$

$4000 \div 100 = 40$

$2 \div 10 = 0.2$

These are just examples of the facts for this term. Children should be able to answer these questions in any order, including missing number questions e.g. $10 \times \bigcirc = 5$ or $\bigcirc \div 10 = 60$.

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.

Key Vocabulary

What is 5 **multiplied by** 10?

What is 10 **times** 0.9?

What is 700 **divided by** 70?

hundreds, tens, units

tenths, hundredths

Year 5 – Term 3

I can identify 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

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?

Key Vocabulary

prime number

composite number

factor

multiple

Year 5 – Term 4

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.

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

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?

Key Vocabulary

What is 8 squared?

What is 7 multiplied by itself?

What is the square root of 144?

Is 81 a square number?

Year 5 – Term 5

I can find factor pairs of a number.

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 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:

$$\begin{array}{ll} 24 = 4 \times 6 & 42 = 6 \times 7 \\ 24 = 8 \times 3 & 25 = 5 \times 5 \\ 56 = 7 \times 8 & 84 = 7 \times 12 \\ 54 = 9 \times 6 & 15 = 5 \times 3 \end{array}$$

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.

- 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.

Key Vocabulary

Can you find a **factor** of 28?

Find two numbers whose **product** is 20.

I know that 6 is a factor of 72 because 6 multiplied by 12 equals 72.

Year 5 – Term 6

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 1½ km?

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.

- 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?