Mathematical Super Powers

Year 4 - Autumn 1

I know number bonds to 100.

Count in 25s and 1000s.

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

Numberbonds to 100

Some examples:

60 + 40 = 100	37 + 63 = 100
40 + 60 = 100	63 + 37 = 100
100 – 40 = 60	100 – 63 = 37
100 – 60 = 40	100 – 37 = 63
75 + 25 = 100	48 + 52 = 100
25 + 75 = 100	52 + 48 = 100
100 – 25 = 75	100 – 52 = 48
100 – 75 = 25	100 – 48 = 52

Count in 25s

0, 25, 50, 75, 100, 125, 150, 175, 200, 225, 250, 275, 300 etc

Count in 1000s

0, 1000, 2000, 3000, 4000, 5000, 6000, 7000, 8000, 9000, 10,000, 11,000, 12,000 etc

Key Vocabulary

What do I **add** to 65 to make 100?

What is 100 **take away** 6?

What is 13 **less than** 100?

How many more than 98 is 100? What is the **difference** between 89 and 100?

This list includes some examples of facts that children should know. They should be able to answer questions including missing number questions e.g. 49 + ◯ = 100 or 100 – ◯ = 72

Key Vocabulary

How many 25s make 100?

So how many 25s will make 200? etc Multiply 1000 by 6.

What are 4 lots of 25?

Try counting on in 25s from 0 or any multiple of 25. Can your child see how counting in 25s relates to fractions, decimals, fractions?

Advice

The secret to success is practising little and often. Can you practise these Super Powers 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. Vary the way you practice through the use of key vocabulary and language as well as known facts: What do I add to 40 to make 100? What is 100 take away 30? What is 20 less than 90? How many more than 30 is 70? What is the difference between 10 and 50?

Buy one get three free: If your child knows one fact (e.g. 80 + 20 = 10), can they tell you the other facts in the same family? 20+80=100 100-20=80 and 100-80=20

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

Play games – There are missing number questions at http://www.conkermaths.org/cmweb.nsf/products/conkerkirfs.html
See how many questions you can answer in just 90 seconds. There is also a number bond pair game to play.

Roll a number – Use 2 dice to create a 2 digit number – which number do you add to this to make 100?

Mathematical Super Powers

Year 4 - Autumn 2

I can count in 6s.

I know the multiplication and division facts for the 6 times table. (up to 12x6)

By the end of this half term, children should know the factor pairs of numbers in the times tables. The aim is for them to recall these facts fairly **instantly**.

Count in 6s			**Key vocabulary**
0	0 x 6 = 0	0 ÷ 6 = 0	
6	1 x 6 = 6	6 ÷ 6 = 1	What is 4 **times** 6?
12	2 x 6 = 12	12 ÷ 6 = 2	What is 8 **multiplied by** 6?
18	3 x 6 = 18	18 ÷ 6 = 3	What is 24 **divided by** 6?
24	4 x 6 = 24	24 ÷ 6 = 4	What is 48 **shared between** 6?
30	5 x 6 = 30	30 ÷ 6 = 5	What is 72 **divided into groups of** 6?
36	6 x 6 = 36	36 ÷ 6 = 6	
42	7 x 6 = 42	42 ÷ 6 = 7	
48	8 x 6 = 48	48 ÷ 6 = 8	
54	9 x 6 = 54	54 ÷ 6 = 9	
60	10 x 6 = 60	60 ÷ 6 = 10	
66	11 x 6 = 66	66 ÷ 6 = 11	
72	12 x 6 = 72	72 ÷ 6 = 12	

They should be able to answer these questions in any order, including missing number questions, e.g. 6 × ◯ = 54 or ◯ ÷ 6 = 7.

Advice

The secret to success is practising little and often. Can you practise these Super Powers while walking to school or during a car journey? You don't need to practise them all at once.

Buy one get three free – If your child knows one fact (e.g. 12 × 6 = 72), can they tell you the other three facts in the same fact family? If you know 7 x 6 = 42, then what will 70 x 6 be?

Times Table Rockstars – Children all have their username and password to practice in the "Garage" and the "Arena". They could try playing in the "Studio" and also do the Soundcheck.

Look for patterns – These times tables are full of patterns for your child to find. How many can they spot?

Use your three times table – Multiply a number by 3 and then double it. What do you notice? (e.g. 7 × 3 = 21, double it to get 7 x 6 which is 42).

Mathematical Super Powers

Year 4 – Spring 1

I can count in 9s and 11s.
I know the multiplication and division facts for the 9 and 11 times tables.

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

Count in 9s	0 x 9 = 0	9 ÷ 9 = 1	**Count in 11s**	0 x 11 = 0	11 ÷ 11 = 1
0	1 x 9 = 9	18 ÷ 9 = 2	**0**	1 x 11 = 11	22 ÷ 11 = 2
9	2 x 9 = 18	27 ÷ 9 = 3	**11**	2 x 11 = 22	33 ÷ 11 = 3
18	3 x 9 = 27	36 ÷ 9 = 4	**22**	3 x 11 = 33	44 ÷ 11 = 4
27	4 x 9 = 36	45 ÷ 9 = 5	**33**	4 x 11 = 44	55 ÷ 11 = 5
36	5 x 9 = 45	54 ÷ 9 = 6	**44**	5 x 11 = 55	66 ÷ 11 = 6
45	6 x 9 = 54	63 ÷ 9 = 7	**55**	6 x 11 = 66	77 ÷ 11 = 7
54	7 x 9 = 63	72 ÷ 9 = 8	**66**	7 x 11 = 77	88 ÷ 11 = 8
63	8 x 9 = 72	81 ÷ 9 = 9	**77**	8 x 11 = 88	99 ÷ 11 = 9
72	9 x 9 = 81	90 ÷ 9 = 10	**88**	9 x 11 = 99	110÷ 11 =10
81	10 x 9 = 90	99 ÷ 9 = 11	**99**	10 x 11 = 110	121 ÷ 11 = 11
90	11 x 9 = 99	108 ÷ 9 = 12	**110**	11 x 11 = 121	132 ÷ 11 = 12
99	12 x 9 = 108		**121**	12 x 11 = 132	
108			**132**		

Key vocabulary

What is 4 **times** 9? What is 8 **multiplied by** 11? What is 77 **divided by** 11? What is 45 **shared between** 9? What is 132 **divided into groups of** 11?

They should be able to answer these questions in any order, including missing number questions, e.g. 9 × ◯ = 108 or ◯ ÷ 11 = 7.

Advice

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. 12 × 9 = 108), can they tell you the other three facts in the same fact family? If you know 7 x 9 = 63, then what will 70 x 9 be?

Times Table Rockstars – Children all have their username and password to practice in the "Garage" and the "Arena". They could try playing in the "Studio" and also do the Soundcheck.

Look for patterns – These times tables are full of patterns for your child to find. How many can they spot? Use your ten times table – Multiply a number by 10 and subtract the original number (e.g. 7 ×10 –7 = 70 –7 = 63). What do you notice? What happens if you add your original number instead?

http://www.conkermaths.org/cmweb.nsf/products/conkerkirfs.html See how many questions you can answer in 90seconds. https://www.topmarks.co.uk/maths-games/daily10 and https://www.topmarks.co.uk/maths-games/hit-the-button

Mathematical Super Powers

Year 4 – Spring 2

I can count in 7s and 12s. I know the multiplication and division facts for the 7 and 12 times tables.

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

Count in 7s			**Count in 12s**		
0	0 x 7 = 0	7 ÷ 7 = 1	**0**	0 x 12 = 0	12 ÷ 12 = 1
7	1 x 7 = 7	14 ÷ 7 = 2	**12**	1 x 12 = 12	24 ÷ 12 = 2
14	2 x 7 = 14	21 ÷ 7 = 3	**24**	2 x 12 = 24	36 ÷ 12 = 3
21	3 x 7 = 21	28 ÷ 7 = 4	**36**	3 x 12 = 36	48 ÷ 12 = 4
28	4 x 7 = 28	35 ÷ 7 = 5	**48**	4 x 12 = 48	60 ÷ 12 = 5
35	5 x 7 = 35	42 ÷ 7 = 6	**60**	5 x 12 = 60	72 ÷ 12 = 6
42	6 x 7 = 42	49 ÷ 7 = 7	**72**	6 x 12 = 72	84 ÷ 12 = 7
49	7 x 7 = 49	56 ÷ 7 = 8	**84**	7 x 12 = 84	96 ÷ 12 = 8
56	8 x 7 = 56	63 ÷ 7 = 9	**96**	8 x 12 = 96	108 ÷ 12 = 9
63	9 x 7 = 63	70 ÷ 7 = 10	**108**	9 x 12 = 108	120÷ 12 =10
70	10 x 7 = 70	77 ÷ 7 = 11	**120**	10 x 12 = 120	132 ÷ 12 = 11
77	11 x 7 = 77	84 ÷ 7 = 12	**132**	11 x 12 = 132	144 ÷ 12 = 12
84	12 x 7 = 84		**144**	12 x 12 = 144	

Key vocabulary

What is 4 **times** 7? What is 8 **multiplied by** 12? What is 72 **divided by** 6?

What is 63 **shared between** 7? What is 132 **divided into groups of** 12?

Advice

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. 12 × 9 = 108), can they tell you the other three facts in the same fact family? If you know 7 x 9 = 63, then what will 70 x 9 be?

Times Table Rockstars – Children all have their username and password to practice in the "Garage" and the "Arena". They could try playing in the "Studio" and also do the Soundcheck.

Look for patterns – These times tables are full of patterns for your child to find. How many can they spot?

Use your ten times table – Multiply a number by 10 and subtract the original number (e.g. 7 ×10 –7 = 70 –7 = 63). What do you notice? What happens if you add your original number instead?

http://www.conkermaths.org/cmweb.nsf/products/conkerkirfs.html See how many questions you can answer in 90seconds.

https://www.topmarks.co.uk/maths-games/daily10 and https://www.topmarks.co.uk/maths-games/hit-the-button

Mathematical Super Powers

Year 4 – Summer 1

I can recognise decimal equivalents of the fractions ½, ¼, ¾, tenths and hundredths.

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

½ = 0.5	1/10 = 0.1	1/100 = 0.01	Key vocabulary
¼ = 0.25	2/10 = 0.2	7/100 = 0.07	How many **tenths** is 0.8?
¾ = 0.75	5/10 = 0.5	21/100 = 0.21	How many **hundredths** is 0.12?
	5/10 = 0.6	75/100 = 0.75	Write 0.75 as a **fraction**?
	9/10 = 0.9	99/100 = 0.99	Write ¼ as a **decimal**?

Children should be able to convert between decimals and fractions for ½, ¼, ¾ and any number of tenths and hundredths.

Advice

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.

Play games - Make some cards with pairs of equivalent fractions and decimals. Use these to play the memory game or snap. Or make your own dominoes with fractions on one side and decimals on the other.

https://www.topmarks.co.uk/maths-games/daily10 - Level 4 – Fractions – decimal equivalents

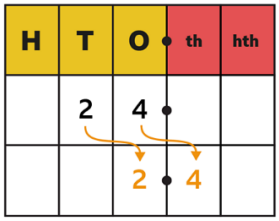
Mathematical Super Powers

Year 4 – Summer 2

I can multiply and divide 1 and 2-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.**

When you multiply by 10, the number gets 10 times bigger. Each digit moves one place to the left. The space is filled with a 0, which is called a place holder.	When you multiply by 100, the number gets 100 times bigger. The digits move two places to the left. The spaces are filled with 0's, which are called place holders.	When you divide by 10, the number gets 10 times smaller. The digits move one place to the right.	When you divide by 100, the number gets 100 times smaller. The digits move two places to the right.
4 x 10 = 40 7 x 10 = 70 53 x 10 = 530 72 x 10 = 720	3 x 100 = 300 9 x 100 = 900 25 x 100 = 2500 16 x 10 = 1600	5 ÷ 10 = 0.5 9 ÷ 10 = 0.9 35 ÷ 10 = 3.5 72 ÷ 10 = 7.2	2 ÷ 100 = 0.02 8 ÷ 100 = 0.08 29 ÷ 100 = 0.29 99 ÷ 100 = 0.99



10 000	1000	100	10	1	$\frac{1}{10}$	$\frac{1}{100}$

Key vocabulary

Ten times bigger Ten times smaller Hundred times bigger Hundred times smaller

Move the digits one place to the left Decimal point tenths hundredths

Children should be able to work these out in their heads.

They should also be able to say answers such as 5 ÷ 10 = 0.5 as 5 tenths and 29 ÷ 100 = 0.29 as 29 hundredths or 2 tenths and 9 hundredths.