Mathematical Super Powers

Year 3 - Autumn 1



I know number bonds for all numbers up to 20. I can count in 50s and 100s.

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

The children should know the number bonds to **all** numbers up to 20 e.g. Number bonds to 15: 0 + 15 = 15 1 + 14 = 15 2 + 13 = 15 etc. Number bonds to 16: 0 + 16 = 16 1 + 15 = 16 2 + 14 = 16 etc. The children should know all the number bonds that total 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19 and 20	**Count in 50s** 50 100 150 200 250 300 350 400 450 500	**Count in 100s** 100 200 300 400 500 600 700 800 900 1000

Key Vocabulary

Count
Forwards
Backwards
1-1000 (word and digit)
Number bonds
Related facts
Subtract
Take away
Less than
More than
Add

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.

You don't need to practise them all at once: perhaps you could have a fact/facts of the day!

Vary the way you practice through the use of key vocabulary and language: What do I add to 5 to make 20? What is 19 take away 6? What is 3 less than 17? How many more than 16 is 19? Use number bonds to 10 (e.g. 7 + 3 = 10) to work out related number bonds to 20 (e.g. 17+3 = 20).

Children should be able to answer these questions in any order, including missing number questions e.g. 3 + __ = 15 or 14 - __ = 2 What is 13 add 2? What is 18 plus 2? What is 5 take away 2 Ask questions such as, "How many more potatoes would I need to make 5?"

Use practical resources - make collections of 20 objects. Ask questions such as, "How many more cars would I need to make 20?"

http://www.topmarks.co.uk//maths-games/hit-the-button for number bonds to 20.

Mathematical Super Powers

Year 3 - Autumn 2



I can count in 3s and I know the multiplication and division facts for the 3 times table.

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 3s			Key vocabulary
0	0 x 3 = 0	3 ÷ 3 = 1	
3	1 x 3 = 3	6 ÷ 3 = 2	What is 3 **times** 3?
6	2 x 3 = 6	9 ÷ 3 = 3	
9	3 x 3 = 9	12 ÷ 3 = 4	What is 8 **multiplied by** 3?
12	4 x 3 = 12	15 ÷ 3 = 5	
15	5 x 3 = 15	18 ÷ 3 = 6	What is 24 **divided by** 3?
18	6 x 3 = 18	21 ÷ 3 = 7	
21	7 x 3 = 21	24 ÷ 3 = 8	What is 27 **shared between** 3?
24	8 x 3 = 24	27 ÷ 3 = 9	
27	9 x 3 = 27	30 ÷ 3 =10	What is 12 **divided into groups of** 3?
30	10 x 3 = 30	33 ÷ 3 = 11	
33	11 x 3 = 33	36 ÷ 3 = 12	
36	12 x 3 = 36		

They should be able to answer these questions in any order, including missing number questions, e.g. $3 \times \square = 12$ or $\square \div 3 = 7$.

Advice

Vary the way you practice through the use of key vocabulary and language as well as known facts: What is 3 multiplied by 8? What is 8 times 3? What is 24 divided by 3?

What do you already know? – Your child will already know many of these facts from the 2, 3, 5 and 10 times tables.

Buy one get three free – If your child knows one fact (e.g. 3 x 5 = 15), can they tell you the other three facts in the same fact family?

Warning - When creating fact families, children sometimes get confused by the order of the numbers in the division number sentence. It is tempting to say that the biggest number goes first, but it is more helpful to say that the answer to the multiplication goes first, as this will help your child more in later years when they study fractions, decimals and algebra.

E.g. 3 x 2 = 36. The answer to the multiplication is 36, so 36 ÷ 3 = 12 and 36 ÷ 12 = 3.

Mathematical Super Powers

Year 3 - Spring 1



I can count in 4s and I know the multiplication and division facts for the 4 times table.

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 4s	0 x 4 = 0	4 ÷ 4 = 1	**Key vocabulary**
0	1 x 4 = 4	8 ÷ 4 = 2	
4	2 x 4 = 8	12 ÷ 4 = 3	What is 4 **times** 4?
8	3 x 4 = 12	16 ÷ 4 = 4	
12	4 x 4 = 16	20 ÷ 4 = 5	What is 8 **multiplied by** 4?
16	5 x 4 = 20	24 ÷ 4 = 6	
20	6 x 4 = 24	28 ÷ 4 = 7	
24	7 x 4 = 28	32 ÷ 4 = 8	What is 24 **divided by** 4?
28	8 x 4 = 32	36 ÷ 4 = 9	
32	9 x 4 = 36	40 ÷ 4=10	
36	10 x 4 = 40	44 ÷ 4 = 11	What is 48 **shared between** 4?
40	11 x 4 = 44	48 ÷ 4 = 12	
44	12 x 4 = 48		
48			What is 12 **divided into groups of** 4?

They should be able to answer these questions in any order, including missing number questions, e.g. $4 \times \bigcirc = 16$ or $\bigcirc \div 4 = 7$.

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.

What do you already know? – Your child will already know many of these facts from the 2, 3, 5 and 10 times tables.

Double and double again – Multiplying a number by 4 is the same as doubling and doubling again. Double 6 is 12 and double 12 is 24, so $6 \times 4 = 24$.

Buy one get three free – If your child knows one fact (e.g. $12 \times 4 = 48$), can they tell you the other three facts in the same fact family?

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" but remember these will be any questions up to 12x12. 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 3 – Spring 2



I can count in 8s and I know the multiplication and division facts for the 8 times table.

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 8s	0 x 8 = 0	0 ÷ 8 = 0	Key vocabulary
0	1 x 8 = 8	8 ÷ 8 = 1	
8	2 x 8 = 16	16 ÷ 8 = 2	What is 4 **times** 8?
16	3 x 8 = 24	24 ÷ 8 = 3	
24	4 x 8 = 32	32 ÷ 8 = 4	What is 8 **multiplied by 8**?
32	5 x 8 = 40	40 ÷ 8 = 5	
40	6 x 8 = 48	48 ÷ 8 = 6	
48	7 x 8 = 56	56 ÷ 8 = 7	What is 24 **divided by 8**?
56	8 x 8 = 64	64 ÷ 8 = 8	
64	9 x 8 = 72	72 ÷ 8 = 9	What is 48 **shared between** 8?
72	10 x 8 = 80	80 ÷ 8=10	
80	11 x 8 = 88	88 ÷ 8 = 11	
88	12 x 8 = 96	96 ÷ 8 = 12	What is 72 **divided into groups of** 8?
96			

They should be able to answer these questions in any order, including missing number questions, e.g. 4 × ◯ = 32 or ◯ ÷ 8 = 56.

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.

What do you already know? – Your child will already know many of these facts from the 2, 3, 4, 5 and 10 times tables.

Double the 4 times tables – Multiplying a number by 8 is the same as multiplying by 4 and doubling. 6 × 8 = 48 because 6 x 4 = 24 and double that to get 48.

Buy one get three free – If your child knows one fact (e.g. 12 × 8 = 96), can they tell you the other three facts in the same fact family?

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" but remember these will be any questions up to 12x12.

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

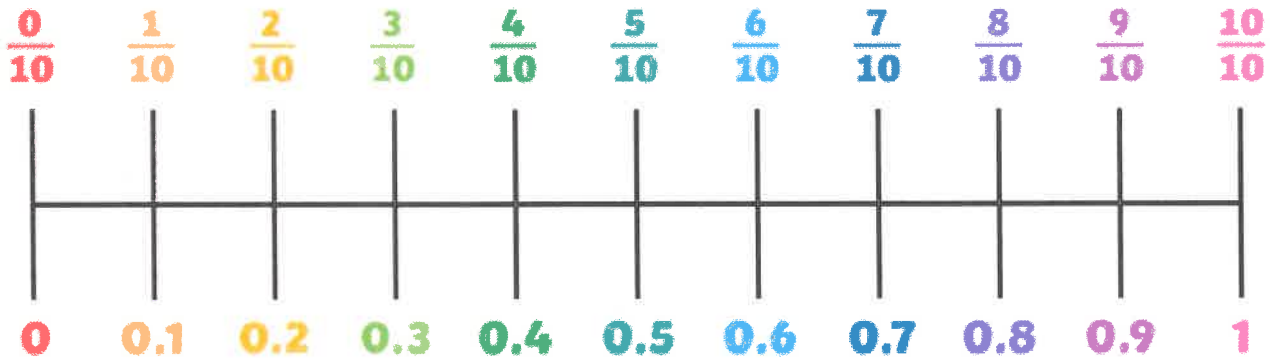
Mathematical Super Powers

Year 3 – Summer 1



I can count up and down in tenths. I can recognise decimal equivalent of tenths.

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



You might use a number line to help count on/back in steps of tenths.

The children are introduced to the decimal equivalents of tenths:	
0.1= 1/10	0.5 = 5/10
0.2 = 2/10	0.6 = 6/10
0.3 = 3/10	0.7 = 7/10
0.4 = 4/10	0.8 = 8/10
	0.9 = 9/10
	1.0 = 10/10 etc.

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 but instead choose to focus on different aspects at different times.

Games Make decimal and fraction equivalent cards and play snap/pairs.

https://www.topmarks.co.uk/maths-games/daily10 - fraction/decimal sections

Mathematical Super Powers

Year 3 – Summer 2



I can multiply and divide by 10.

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

Multiplying by 10

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.

3 x 10 = 30

6 x 10 = 60

8 x 10 = 80

Dividing by 10

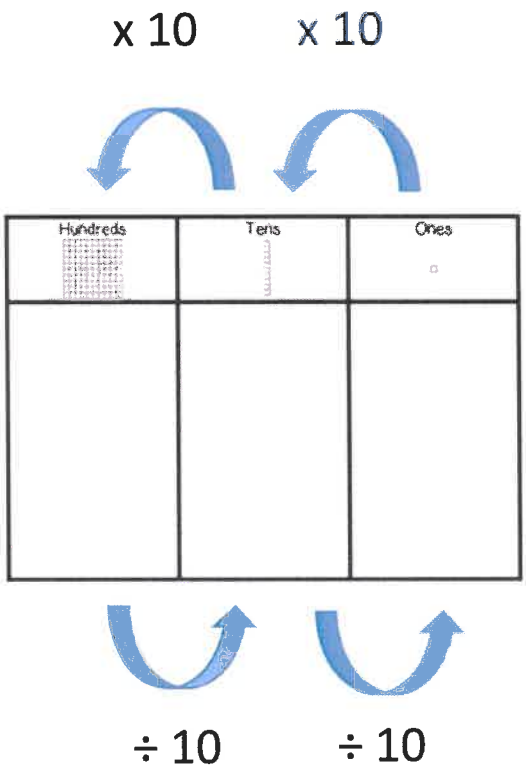
When you divide by 10, the number gets 10 times smaller.

The digits move one place to the **right.**

30 ÷ 10 = 3

50 ÷ 10 = 5

90 ÷ 10 = 9



Key vocabulary

Ten times bigger	Move the digits one place to the left
Ten times smaller	Move the digits one place to the right

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 but instead choose to focus on different aspects at different times.

Games: https://www.topmarks.co.uk/maths-games/hit-the-button x and ÷ by 10 section