Key Instant Recall Facts

Sharow CE Primary School

To help develop children's fluency in mathematics, we ask them to learn Key Instant Recall Facts (KIRFs) each half term.

We expect children to practise their KIRFs regularly, at least 3 times a week at home to support their learning in school.

By the end of each half term, the aim and expectation is that ALL our pupils achieve and will be able to instantly recall these facts to support their mathematical fluency in class.

Some KIRFs have facts to learn in blue. These are the next steps for children who have mastered the expected facts and who enjoy a challenge. All facts in black **must** be mastered before moving on to blue ones.

There are some ideas to help you on each sheet but please ask your class teacher if you need any more ideas to help you practise them at home. They can be completed during the walk to school or over breakfast in the morning; it doesn't need to be a long, formal session of learning or a large time commitment.

Key Instant Recall Facts

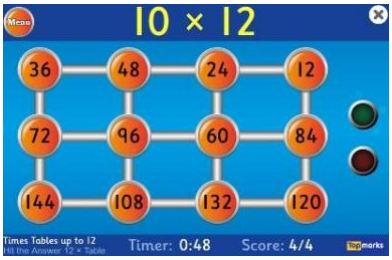
Some helpful apps and websites

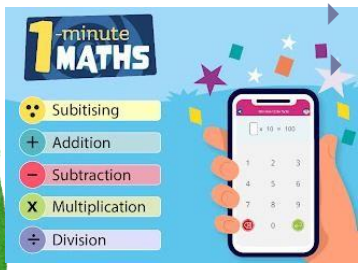
There are lots of fantastic resources available to help our children learn their key facts. Some of these below are no-nonsense, but super fun and effective apps, videos and games for the children to use to learn their KIRFs

Hit the Button

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

This is great for number bonds, multiplication and division facts. Beautifully simple, it is free to use on a web browser but is also available as a paid app (£2.99). Probably the best 'no fuss' maths app available!





White Rose 1 Minute Maths App

Superb free app for all children from nursery to Year 6! The app uses the notion of little and often, encouraging the children to practise for 1 minute a day. It is covers subitising, addition, subtraction, number bonds, multiplication and division.

Numberblocks Videos:
https://www.bbc.co.uk/iplayer/episodes/b08bzfnh/numberblocks?scrlybrkr=9c05d913

Watching Numberblocks is great fun! Initially created for younger children, they have now created episodes that cover objectives taught in Key Stage 1 and even some in Key Stage 2. They have lots of catchy songs to help recall number facts too.

- Times Table Rock-Stars App
- The school subscribes to Times Table Rock-stars App. Download the App and log in! This is a great app to encourage children to increase the speed of their recall of multiplication facts.

Nursery & Reception: Key Instant Recall Facts (KIRFs): Overview of the Year

Autumn 1	Nursery	I can say the numbers 1-5 in order I can say the numbers 1-10 in order
	Reception	I can say the numbers from 0-5 and back from 5-0 in order I can say the numbers from 0-10 and back from 10-0 in order
Autumn 2	Nursery	I can link numerals to amounts 1-3 I can link numerals to amounts 1-5
	Reception	I can subitise (recognise quantities without counting) up to 5 I can subitise (recognise quantities without counting) beyond 5
Spring 1	Nursery	I can subitise (recognise quantities without counting) up to 3 I can subitise (recognise quantities without counting) up to 5
	Reception	I can say the numbers from 0-10 and back from 10-0 in order I can say the numbers from 0-20 and back from 20-0 in order
Spring 2	Nursery	I can count objects saying 1 number for each item up to 5 I can say how many are in a set after counting
	Reception	I can say 1 more or 1 less than a given number up to 10 I can say 1 more or 1 less than a given number up to 20
Summer 1	Nursery	I can compare quantities using the language 'more than' or 'fewer than' I can say 1 more or less than a given number up to 5
	Reception	I can partition numbers up to 6 into two groups I can partition numbers up to 12 into two groups
Summer 2	Nursery	I can count, read and order numbers to 5 I can count, read and order numbers to 10
	Reception	I can count, read and order numbers to 20 I can count, read and order numbers to 50

Key Instant Recall Facts

Nursery – Autumn 1

I can say the numbers 1-5 in order
I can say the numbers 1-10 in order

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

- Recall and recognise in order, including number names:
- 1, 2, 3, 4, 5,
- Now try to count numbers from 1 to 10
- 1, 2, 3, 4, 5, 6, 7, 8, 9, 10

Key Vocabulary

1 – one
2 – two
3 – three
4 – four
5 – five
6 – six
7 – seven
8 – eight
9 – nine
10 - ten

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 do not 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.

Use practical resources -

Play hopscotch and count as you jump forward.

Thread pasta; count to 5, then 10 as you thread them on.

Spot numbers in the environment e.g.: on phones, clocks, microwaves, registration plates, doors etc.

Count out 5 (or 10) toys and then count back as you put them away.

Count your way up or down the stairs, buttoning buttons, putting on shoes, etc.

Make biscuits and decorate them counting out the decorations.

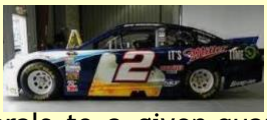
Key Instant Recall Facts

Nursery – Autumn 2

I can link numerals to amounts 1-3
I can link numerals to amounts 1-5

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

- Recognise the numerals 1,2 & 3:

- Link the numerals to a given quantity of objects 1-3

- Now try to read the numerals 1,2,3,4 & 5
- Link the numerals to a quantity of objects 1-5

Key Vocabulary

1 – one
2 – two
3 – three
4 – four
5 – five
number
amount
quantity
count
How many?
total

Top Tips

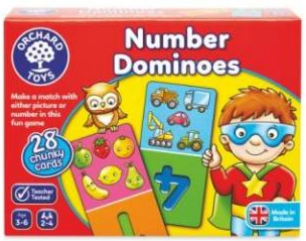
The secret to success is practising **little** and **often** . Use time wisely. Can you practise these KIRFs while walking to school or during a car journey? You do not need to practise them all at once; perhaps you could have a fact of the day. If you would like more ideas, please speak to your child's teacher.

Number treasure hunt around the house or in the garden.

Spot numbers in the environment e.g.: on phones, clocks, microwaves, registration plates, doors etc.

Look for numbers on birthday cards and cakes.

Play games like pairs or number matching jigsaws, matching numerals to quantities.



Key Instant Recall Facts

Nursery – Spring 1

I can subitise (recognise quantities without counting) up to 3
I can subitise (recognise quantities without counting) up to 5

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

- Look at an amount and be able to say how many without counting e.g.:

= two

- Now try with quantities to 5
- E.g.:

= five

Key vocabulary

1, 2, 3, 4, 5
number
amount
quantity
total
altogether
… is the same as

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 do not 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 for where numbers are represented in amounts e.g.: on playing cards or on dice.

Roll one dice (die) and say the amount.

Roll a dice (die) and then grab a corresponding quantity of toys e.g.: toy dinosaurs.

Notice small quantities as playing with toys - how many blue cars, etc.

Hold fingers up and shout how many are held up.

Look in places like fruit bowls and say how many. Then count to check.

Play with the 1 minute maths app by White rose. The subitising games are fantastic!

Key Instant Recall Facts

Nursery – Spring 2

I can count objects saying 1 number for each item up to 5
I can say how many are in a set after counting

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

- Count quantities up to 5 -
- Touch counting, lining up, moving items as we count.
- 1,2,3 cars.

- Now try counting small quantities of objects and saying how many objects there are after counting.
- 1,2,3 cars. There are 3 cars.

Key vocabulary

1 - one
2 - two
3 - three
4 - four
5 - five
count
amount
quantity
total
How many?

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 do not 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.

Take opportunities to count items whenever they arise - '1,2,3,4 forks', '1,2,3,4 knifes', '1,2,3 bananas' etc.

Count toys in play - 1,2,3,4,5 - as the cars go into the garage.

Watch 'Numberblocks' on CBeebies -
www.bbc.co.uk/cbeebies/shows/numberblocks

After counting groups of objects, say how many there are in the set to develop understanding that the last number counted tells you how many there are in total - '1,2,3. There are 3 apples in the bowl.'

Ask how many there are after counting. Can they say how many without counting again?

Key Instant Recall Facts

Nursery – Summer 1

I can compare quantities using the language 'more than' or 'fewer than'
I can say 1 more or less than a given number up to 5

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

- Understand the language 'more than' & 'fewer than'
- Use the language 'more than' & 'fewer than' when comparing quantities
- Now try using objects to find 1 more or 1 less than a given quantity within 5.

Key Vocabulary

amount
quantity
compare
more than
fewer than
less than
one more
one less

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 do not 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.

Compare groups of items in everyday activities, for example, number of knives and forks for setting the table, amounts of strawberries for snacks or bricks for building. Model using the language - I have fewer strawberries than Sam, there are more yellow bricks than green bricks.

Have two separate groups of objects e.g. fruits. Which group has more? Which group has fewer?

Build a Lego tower using the same coloured bricks. Can you add 1 more? Can you take 1 away?

Count out items such as sweets. Ask: If I give you one more how many would that be? Or: If I ate one sweet how many would that be?

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Key Instant Recall Facts

Nursery – Summer 2

I can count, read and order numbers to 5
I can count, read and order numbers to 10

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 be able to count (in order) and read from 0 to 5 in numerals (not words)
- Children should know what number comes next e.g.: 4 comes after 3.
- Children should also know what number comes before a given number e.g.: 2 comes before 3.
- Then try with larger numbers to 10!

Key Vocabulary

0 – zero
1 – one
2 – two
3 – three
4 – four
5 – five
6 – six
7 – seven
8 – eight
9 – nine
10 - ten

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 do not 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.

Count stones or pebbles.

Count toys as you get them out or put them away.

Count steps when climbing the stairs or ladders.

Number treasure hunt. Write numbers in numerals. When children find them peg them on a washing line in order.

Chant and count past 5 or 10 together.

Put number stickers on toy cars etc. Can they line the cars up in order?

Write a number and ask the child to shout the name of the number. Then ask them to say which number comes next.

Give 2 numbers and ask which number is the larger (or smaller) number.

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Key Instant Recall Facts

Reception – Autumn 1

I can say the numbers from 0 to 5 and back from 5 to 0 in order

I can say the numbers from 0 to 10 and back from 10 to 0 in order

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

- Recall and recognise in order, including number names:
- 0, 1, 2, 3, 4, 5,
- And back again:
- 5, 4, 3, 2, 1, 0
- Now try to count numbers from 0 to 10
- 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10
- And back again:
- 10, 9, 8, 7, 6, 5, 4, 3, 2, 1, 0

Key Vocabulary

0 – zero
1 – one
2 – two
3 – three
4 – four
5 – five
6 – six
7 – seven
8 – eight
9 – nine
10 - ten

Top Tips

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Use practical resources -

Number treasure hunt around the house or in the garden.

Play hopscotch and count as you jump forward.

Thread pasta; count to 10 as you thread them on and count back as you take them off.

Spot numbers in the environment e.g.: on phones, clocks, microwaves, registration plates, doors etc.

Count out 5 (or 10) toys and then count back as you put them away.

Make biscuits and decorate them counting out the decorations.

Chant and count forwards and backwards

Key Instant Recall Facts

Reception – Autumn 2

I can subitise (recognise quantities without counting) up to 5

I can subitise (recognise quantities without counting) up to 10

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

- Look at an amount and be able to say how many without counting e.g.:

= five

- Now try with quantities to 10
- Eg:

= seven

<u>Key vocabulary</u>

1, 2, 3, 4, 5, 6, 7, 8, 9, 10

number

amount

quantity

total

altogether

… is the same as

<u>Top Tips</u>

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 do not 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 for where numbers are represented in amounts e.g.: on playing cards or on dice.

Cover the numbers on playing cards and use them as flash cards. Guess the quantity. Count them to check

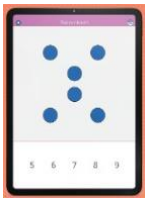
Roll one dice (die) and say the amount. Then move to two dice.

Roll a dice (die) and then grab a corresponding quantity of toys e.g.: toy dinosaurs.

Hold fingers up and shout how many are held up.

Look in places like fruit bowls and say how many. Then count to check.

Play with the 1 minute maths app by White rose. The subitising games are fantastic!



Key Instant Recall Facts

Reception – Spring 1

I can say the numbers from 0 to 10 and back from 10 to 0 in order

I can say the numbers from 0 to 20 and back from 10 to 0 in order

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

- Recall and recognise in order, including number names:
- 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10
- And back again:
- 10, 9, 8, 7, 6, 5, 4, 3, 2, 1, 0
- Now try to count numbers from 0 to 20
- 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20
- And back again:
- 20, 19, 18, 17, 16, 15, 14, 13, 12, 11, 10, 9, 8, 7, 6, 5, 4, 3, 2, 1, 0

Key Vocabulary

0 – zero
1 – one
2 – two
3 – three
4 – four
5 – five
6 – six
7 – seven
8 – eight
9 – nine
10 – ten
11 – eleven
12 – twelve
13 – thirteen
14 – fourteen
15 – fifteen
16 – sixteen
17 – seventeen
18 – eighteen
19 – nineteen
20 - twenty

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 do not 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.

Number treasure hunt around the house or in the garden.

Play hopscotch and count as you jump forward.

Thread pasta; count to 20 as you thread them on and count back as you take them off.

Spot numbers in the environment e.g.: on phones, clocks, microwaves, registration plates, doors etc.

Count out 10 (or 20) toys and then count back as you put them away.

Make biscuits and decorate them counting out the decorations.

Chant and count forwards and backwards

Key Instant Recall Facts

Reception – Spring 2

I can work out 1 more or 1 less than a given number to 10

I can work out 1 more or 1 less than a given number 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**.

- Children are able to practically work out what 1 more and 1 less would be from any given number to 10.
- Children need opportunities to compare and contrast collections of objects and talk about which group has more or less and why.
- Now try 1 more or 1 less than a given number to 20

Key Vocabulary

compare

contrast

more

less

difference

one more

one less

Top Tips

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Use practical resources -

Have two separate groups of objects e.g. satsumas. Which group has more? Which group has less? What is the difference between each group?

Build a Lego tower using the same coloured bricks. Can you add 1 more? Can you take 1 away?

Count out items such as sweets. Ask: If I give you one more how many would that be? Or: If I ate one sweet how many would that be?

Play 'one more' number tennis by shouting a number and the child responds with one more than that number.

Play 'one less' number tennis by shouting a number and the child responds with one less than that number.

Key Instant Recall Facts

Reception – Summer 1

I can partition numbers to 6 into two groups

I can partition numbers to 12 in two groups

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

- Using practical items children should be able to say:
- 5 is made of 5 and 0
- 5 is also made of 4 and 1
- I can split 3 into 2 and 1
- 5 is made of 3 and 2
- or:
- 6 is made of 3 and 2 and 1
- 4 and 2 is the same as 6
- Now try with numbers to 12

Key vocabulary

(number) is made of ____ and _____whole parts

I can split (number) into ____ and ____

____and ____is the same as (number)

Top Tips

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5 teddies are made of 1 blue teddy and 4 red teddies

Find different ways of partitioning a number of biscuits or sweets between 2 (or 3) plates. How many on each plate?

Make 2 'homes' (boxes) for a number of teddies, toys or dolls or 2 car parks for a number of cars. Find different ways to partition the dolls/teddies/cars

Watch 'Numberblocks' on CBeebies -

www.bbc.co.uk/cbeebies/shows/numberblocks

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Key Instant Recall Facts

Reception – Summer 2

I can count, read and order numbers to 20

I can count, read and order numbers to 50

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 be able to count (in order) and read from 0 to 20 in numerals (not words)
- Children should know what number comes next e.g.: 17 comes after 16.
- Children should also know what number comes before a given number e.g.: 12 comes before 13.
- Then try with larger numbers to 50!

Key Vocabulary

1, 2, 3, 4, 5, 6, 7, 8, 9, 10

11, 12, 13, 14, 15, 16, 17, 18, 19, 20

21, 22, 23, 24, 25, 26, 27, 28, 29, 30

31, 32, 33, 34, 35, 36, 37, 38, 39, 40

41, 42, 43, 44, 45, 46, 47, 48, 49, 50

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 do not 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.

Count stones or pebbles.

Count toys as you get them out or put them away.

Count steps when climbing large flights of stairs.

Number treasure hunt. Write numbers in numerals. When children find them peg them on a washing line in order.

Chant and count past 10 or 20 together

Put number stickers on toy cars etc. Can they line the cars up in order?

Write a number and ask the child to shout the name of the number. Then ask them to say which number comes next.

Give 2 numbers and ask which number is the larger (or smaller) number.

Year 1 & 2 Key Instant Recall Facts (KIRF): Overview of the year

		Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Autumn 1	Year 1	I know number bonds for each number to 6 I know number bonds for each number to 10					
	Year 2	I know number bonds of 20 I know number bonds to 20					
Autumn 2	Year 1	I can count forward in steps of 10, 2 and 5 I can count backwards in steps of 10, 2 and 5					
	Year 2	I know the multiplication and division facts for the 2 times table. I know doubles and halves of numbers to 20.					
Spring 1	Year 1	I know doubles and halves of numbers to 10 I know doubles and halves of numbers to 20					
	Year 2	I know the multiplication and division facts for the 10 times table					
Spring 2	Year 1	I know number bonds of 10 I know number bonds of 20					
	Year 2	I know the multiplication and division facts for the 5 times table					
Summer 1	Year 1	I can tell the time to the hour and half past the hour I can tell the time using quarter past and quarter to the hour.					
	Year 2	I can tell the time to the nearest 5 minutes I can tell the time to the nearest minute					
Summer 2	Year 1	I know number bonds for each number to 10 with increasing speed					
	Year 2	I can add multiples of 10					

Key Instant Recall Facts

Year 1 – Autumn 1

I know number bonds for each number to 6.

I know number bonds for each number to 10

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

0 + 1 = 1	0 + 4 = 4	0 + 6 = 6	0 + 7 = 7	0 + 8 = 8	0 + 9 = 9	0 + 10 = 10
1 + 0 = 1	1 + 3 = 4	1 + 5 = 6	1 + 6 = 7	1 + 7 = 8	1 + 8 = 9	1 + 9 = 10
	2 + 2 = 4	2 + 4 = 6	2 + 5 = 7	2 + 6 = 8	2 + 7 = 9	2 + 8 = 10
0 + 2 = 2	3 + 1 = 4	3 + 3 = 6	3 + 4 = 7	3 + 5 = 8	3 + 6 = 9	3 + 7 = 10
1 + 1 = 2	4 + 0 = 4	4 + 2 = 6	4 + 3 = 7	4 + 4 = 8	4 + 5 = 9	4 + 6 = 10
2 + 0 = 2		5 + 1 = 6	5 + 2 = 7	5 + 3 = 8	5 + 4 = 9	5 + 5 = 10
	0 + 5 = 5	6 + 0 = 6	6 + 2 = 8	6 + 2 = 8	6 + 3 = 9	6 + 4 = 10
0 + 3 = 3	1 + 4 = 5		7 + 1 = 8	7 + 1 = 8	7 + 2 = 9	7 + 3 = 10
1 + 2 = 3	2 + 3 = 5		8 + 0 = 8	8 + 0 = 8	8 + 1 = 9	8 + 2 = 10
2 + 1 = 3	3 + 2 = 5				9 + 0 = 9	9 + 1 = 10
3 + 0 = 3	4 + 1 = 5					10 + 0 = 10
	5 + 0 = 5					

They should be able to answer these questions in any order, including missing number questions e.g. 3 + ◯ = 5 or 4 – ◯ = 2.

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.

Use practical resources – Your child has one potato on their plate and you give them three more. Can they predict how many they will have now?

Make a poster – We use Numicon at school. You can find pictures of the Numicon shapes here: bit.ly/NumiconPictures – your child could make a poster showing the different ways of making numbers to 6 and then 10.

Play games – Use the White Rose '1 minute maths' app
Play 'hit the button'. Available for free online or as a paid app.
https://www.topmarks.co.uk/maths-games/hit-the-button

Key Vocabulary

What is 3 add 2?

What is 2 plus 2?

What is 5 take away 2?

What is 1 less than 4?

I have 2 sweets how many more do I need to make 6?

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Key Instant Recall Facts

Year 1 – Autumn 2

I can count forward in steps of 10, 2 and 5.

I can count backwards in steps of 10, 2 and 5

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 be able to start at zero and then count on:
- 0 10 20 30 40 50 60 70 80 90 100 110 120
- 0 5 0 2 4 6 8 10 12 14 16 18 20 22 24
- 10 15 20 25 30 35 40 45 50 55 60
- When confident, they should try counting backwards steps from any of the numbers above.

Key Vocabulary

How many tens can you count?

How many 2s do we count to make 10?

How many 5s make 50?

What are 3 tens?

They should be able to count or chant in order at this stage. Watch out for any missed numbers or where the children are less confident. No need to be able to recall multiplication facts instantly at this stage.

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.

The key is to make learning fun! Try taking it in turns to SHOUT the times tables e.g. for the 2x table, one person shouts 2, another shouts 4 and so on …

Chant the numbers and repeat and repeat and repeat. Change to fun or silly voices whilst chanting. Do this loudly or quietly. Have fun!

Make up a song or watch videos of fun songs on YouTube such as:
https://www.youtube.com/watch?v=q_yUCINCFkE

Use fingers to count each step 2 4 6 8 10 12 so children see they have counted six lots of two to make 12.

Play games – Use the White Rose '1 minute maths' app
Play 'hit the button'. Available for free online or as a paid app.
https://www.topmarks.co.uk/maths-games/hit-the-button

Key Instant Recall Facts

Year 1 – Spring 1

I know doubles and halves of numbers to 10.

I know doubles and halves of numbers 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**.

0 + 0 = 0	½ of 0 = 0	11 + 11 = 22	½ of 12 = 6
1 + 1 = 2	½ of 2 = 1	12 + 12 = 24	½ of 14 = 7
2 + 2 = 4	½ of 4 = 2	13 + 13 = 26	½ of 16 = 8
3 + 3 = 6	½ of 6 = 3	14 + 14 = 28	½ of 18 = 9
4 + 4 = 8	½ of 8 = 4	15 + 15 = 30	½ of 20 = 10
5 + 5 = 10	½ of 10 = 5	16 + 16 = 32	
6 + 6 = 12		17 + 17 = 34	
7 + 7 = 14		18 + 18 = 36	
8 + 8 = 16		19 + 19 = 38	
9 + 9 = 18		20 + 20 = 40	
10 + 10 = 20			

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.

Number Tennis – In this game, the parent says, a number, and the child replies, with the double. This can also be played by halving the given number.

Investigate – use items such as pebbles to half odd and even numbers. What do the children notice? Why is it harder to halve odd numbers. Think about halving items such as cakes where the items could be split and discuss this concept.

Practise online – Play games – Use the White Rose '1 minute maths' app Play 'hit the button'. Available for free online or as a paid app. https://www.topmarks.co.uk/maths-games/hit-the-button

Key Vocabulary

What is double 9?

What is half of 6?

odd

Even

Double

Two lots of

Halve

Split into two groups

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Key Instant Recall Facts

Year 1 – Spring 2

I know number bonds of 10.

I know number bonds of 20.

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

0 + 10 = 10	2 + 8 = 10	4 + 6 = 10	0 + 20 = 20	20 + 0 = 20	20 – 0 = 20	20 – 20 = 0
10 + 0 = 10	8 + 2 = 10	6 + 4 = 10	1 + 19 = 20	19 + 1 = 20	20 – 1 = 19	20 – 19 = 1
10 – 10 = 0	10 – 8 = 2	10 – 6 = 4	2 + 18 = 20	18 + 2 = 20	20 – 2 = 18	20 – 18 = 2
10 – 0 = 10	10 – 2 = 8	10 – 4 = 6	3 + 17 = 20	17 + 3 = 20	20 – 3 = 17	20 – 17 = 3
			4 + 16 = 20	16 + 4 = 20	20 – 4 = 16	20 – 16 = 4
1 + 9 = 10	3 + 7 = 10	5 + 5 = 10	5 + 15 = 20	15 + 5 = 20	20 – 5 = 15	20 – 15 = 5
9 + 1 = 10	7 + 3 = 10	10 – 5 = 5	6 + 14 = 20	14 + 6 = 20	20 – 6 = 14	20 – 14 = 6
10 – 9 = 1	10 – 7 = 3		7 + 13 = 20	13 + 7 = 20	20 – 7 = 13	20 – 13 = 7
10 – 1 = 9	10 – 3 = 7		8 + 12 = 20	12 + 8 = 20	20 – 8 = 12	20 – 12 = 8
			9 + 11 = 20	11 + 9 = 20	20 – 9 = 11	20 – 11 = 9
			10 + 10 = 20		20 – 10 = 10	

They should be able to answer these questions in any order, including missing number questions e.g. 6 + ◯ = 10 or 10 – ◯ = 3.

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.

Use practical resources – Use two plates and 10 items such as counters or pebbles. Split the 10 into the two groups and say how many is in each making ten.

Make a poster – We use Numicon at school. You can find pictures of the Numicon shapes here: bit.ly/NumiconPictures – your child could make a poster showing the different ways of making 5.

Play games – Use the White Rose '1 minute maths' app
Play 'hit the button'. Available for free online or as a paid app.
https://www.topmarks.co.uk/maths-games/hit-the-button

Key Vocabulary

What is 6 add 4?

I have 3 how many more will I need to make 10?

I have 18 sweets. How many will I eat to leave 10?

What is 6 less than 16?

Key Instant Recall Facts

Year 1 – Summer 1

I can tell the time to the hour and half past the hour.

I can tell the time using quarter past and quarter to the hour.

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

Children need to be able to tell the time using a clock with hands. This target can be broken down into several steps.

- I can tell the time to the nearest hour.
- I can tell the time to the nearest half hour.

Then the next steps are:

- I can tell the time using quarter past and quarter to the hour.

Key Vocabulary

one
two
three
four
five
six
seven
eight
nine
ten
eleven
twelve
o'clock
half past
quarter past
quarter to
Minutes
hours
seconds

Top Tips

The secret to success is practising **little** and **often**. If you would like more ideas, please speak to your child's teacher.

Talk about time - Discuss what time things happen. When does your child wake up? What time do they eat breakfast? Make sure that you have an analogue clock visible in your house or that your child wears a watch with hands. Look at clocks around the house and identify the time. Draw clocks and think where the hands could go.

Play
Play Maths frame 'Telling the Time' game online:
https://mathsframe.co.uk/en/resources/resource/116/telling-the-time

Read books about time discus where time has appeared in cartoons or films. Talk about durations of events such as how long it takes to cook a meal, how long is a football match, how long is the film we are watching etc.
Watch helpful videos such as : https://www.youtube.com/watch?v=9p_Ca_Yb0zQ
Or: https://www.youtube.com/watch?v=XvrPpRMsQm4

Remember lots of children struggle with concept of telling the time at first. Don't get frustrated, but don't give up. Keep revisiting and going over the basics. If you excuse the pun it can sometimes take a little … time!

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Key Instant Recall Facts

Year 1 – Summer 2

I know number bonds for each number to 10 with increasing speed

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

0 + 1 = 1	0 + 4 = 4	0 + 6 = 6	0 + 7 = 7	0 + 8 = 8	0 + 9 = 9	0 + 10 = 10
1 + 0 = 1	1 + 3 = 4	1 + 5 = 6	1 + 6 = 7	1 + 7 = 8	1 + 8 = 9	1 + 9 = 10
	2 + 2 = 4	2 + 4 = 6	2 + 5 = 7	2 + 6 = 8	2 + 7 = 9	2 + 8 = 10
0 + 2 = 2	3 + 1 = 4	3 + 3 = 6	3 + 4 = 7	3 + 5 = 8	3 + 6 = 9	3 + 7 = 10
1 + 1 = 2	4 + 0 = 4	4 + 2 = 6	4 + 3 = 7	4 + 4 = 8	4 + 5 = 9	4 + 6 = 10
2 + 0 = 2		5 + 1 = 6	5 + 2 = 7	5 + 3 = 8	5 + 4 = 9	5 + 5 = 10
	0 + 5 = 5	6 + 0 = 6	6 + 2 = 8	6 + 2 = 8	6 + 3 = 9	6 + 4 = 10
0 + 3 = 3	1 + 4 = 5		7 + 1 = 8	7 + 1 = 8	7 + 2 = 9	7 + 3 = 10
1 + 2 = 3	2 + 3 = 5		8 + 0 = 8	8 + 0 = 8	8 + 1 = 9	8 + 2 = 10
2 + 1 = 3	3 + 2 = 5				9 + 0 = 9	9 + 1 = 10
3 + 0 = 3	4 + 1 = 5					10 + 0 = 10
	5 + 0 = 5					

They should be able to answer these questions in any order, including missing number questions e.g. 1 + ◯ = 10 or 9 – ◯ = 8.

The children will need to know these by rote and should be able to recall these facts at speed (less than 5 seconds)

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.

Use what you already know – Use other number bonds you know to help with learning new ones. Chant the number facts, write them out, use items to represent the numbers.

Use practical resources – Make collections of 10 objects. Ask questions such as, "How many more conkers would I need to make 10?"
Your child has five tomatoes on their plate and you give them three more. Can they predict how many they will have now?

Make a poster – We use Numicon at school. You can find pictures of the Numicon shapes here: bit.ly/NumiconPictures
– your child could make a poster showing the different ways of making numbers up to 10.

Play games – Use the White Rose '1 minute maths' app
Play 'hit the button'. Available for free online or as a paid app.
https://www.topmarks.co.uk/maths-games/hit-the-button

Key Vocabulary

What is 3 add 2?

What is 2 plus 2?

What is 5 take away 2?

What is 1 less than 4?

I have 2 sweets how many more do I need to make 6?

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Key Instant Recall Facts

Year 2 – Autumn 1

I know number bonds of 20.

I know number bonds 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**.

0 + 20 = 20	20 + 0 = 20	20 – 0 = 20	20 – 20 = 0
1 + 19 = 20	19 + 1 = 20	20 – 1 = 19	20 – 19 = 1
2 + 18 = 20	18 + 2 = 20	20 – 2 = 18	20 – 18 = 2
3 + 17 = 20	17 + 3 = 20	20 – 3 = 17	20 – 17 = 3
4 + 16 = 20	16 + 4 = 20	20 – 4 = 16	20 – 16 = 4
5 + 15 = 20	15 + 5 = 20	20 – 5 = 15	20 – 15 = 5
6 + 14 = 20	14 + 6 = 20	20 – 6 = 14	20 – 14 = 6
7 + 13 = 20	13 + 7 = 20	20 – 7 = 13	20 – 13 = 7
8 + 12 = 20	12 + 8 = 20	20 – 8 = 12	20 – 12 = 8
9 + 11 = 20	11 + 9 = 20	20 – 9 = 11	20 – 11 = 9
10 + 10 = 20		20 – 10 = 10	

Key Vocabulary

What do I add to 5 to make 20?

What is 20 take away 6?

What is 3 less than 20?

How many more than 16 is 20?

I have 2 sweets how many more do I need to make 20?

They should be able to answer these questions in any order, including missing number questions e.g. 19 + ◯ = 20 or 20 – ◯ = 8.

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.

Use what you already know – Use number bonds to 10 (e.g. 7 + 3 = 10) to work out related number bonds to 20 (e.g. 17 + 3 = 20). This is a great chance to recap over previous learning and ensure that recall of all number bonds to 10 are strong and quick.

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

Make a poster – We use Numicon at school. You can find pictures of the Numicon shapes here: bit.ly/NumiconPictures – your child could make a poster showing the different ways of making 20.

Play games – Use the White Rose '1 minute maths' app
Play 'hit the button'. Available for free online or as a paid app.
https://www.topmarks.co.uk/maths-games/hit-the-button

Next step: Learn all calculations to 20 or ways of making 12, 13, 14, 15. 16, 17, 18 & 19 e.g.:

6 + 7 = 13

8 + 11 = 19

2 + 16 = 18

5 + 8 = 13

4 + 9 = 13

9 + 9 = 18

7 + 7 = 14

6 + 5 = 11

6 + 9 = 15

etc

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Key Instant Recall Facts

Year 2 – Autumn 2

I know the multiplication and division facts for the 2 times table.
I know doubles and halves of numbers 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**.

2 × 1 = 2	2 ÷ 2 = 1
2 × 2 = 4	4 ÷ 2 = 2
2 × 3 = 6	6 ÷ 2 = 3
2 × 4 = 8	8 ÷ 2 = 4
2 × 5 = 10	10 ÷ 2 = 5
2 × 6 = 12	12 ÷ 2 = 6
2 × 7 = 14	14 ÷ 2 = 7
2 × 8 = 16	16 ÷ 2 = 8
2 × 9 = 18	18 ÷ 2 = 9
2 × 10 = 20	20 ÷ 2 = 10
2 × 11 = 22	22 ÷ 2 = 11
2 × 12 = 24	24 ÷ 2 = 12

Key Vocabulary

What is 2 multiplied by 7?
What is 2 times 9?
What is 12 divided by 2?
What is double 8?
What is half of 24?
Two 6s are?
Two groups of 7 make?
Share 22 into 2 groups. How many is in each group?

They should be able to answer these questions in any order, including missing number questions e.g. 2 × ◯ = 8 or ◯ ÷ 2 = 6.
The children will be expected to recall answers to facts out of order instantly (within 5 seconds)

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.

Songs and Chants – Listen to fun multiplication songs and chants online such as: https://www.youtube.com/watch?v=AUL_4lzT06I . You could even create your own song! If your child creates their own song, this can make the times tables even more memorable.

Use what you already know – If your child knows that 2 × 5 = 10, they can use this fact to work out that 2 × 6 = 12. Children should recognise that multiplying by 2 is the same as doubling e.g.: double 4 is 8 and 2 x 4 is 8

Test the Parent – Your child can make up their own tricky division questions for you e.g. *What is 18 divided by 2?* They need to be able to multiply to create these questions.

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

Play games – Use the White Rose '1 minute maths' app Play 'hit the button'. Available for free online or as a paid app. https://www.topmarks.co.uk/maths-games/hit-the-button

Next Step: I know doubles and halves of numbers to 20.

0 + 0 = 0	½ of 0 = 0	
1 + 1 = 1	½ of 2 = 1	11 + 11 = 22
2 + 2 = 4	½ of 4 = 2	12 + 12 = 24
3 + 3 = 6	½ of 6 = 3	13 + 13 = 26
4 + 4 = 8	½ of 8 = 4	14 + 14 = 28
5 + 5 = 10	½ of 10 = 5	15 + 15 = 30
6 + 6 = 12	½ of 12 = 6	16 + 16 = 32
7 + 7 = 14	½ of 14 = 7	17 + 17 = 34
8 + 8 = 16	½ of 16 = 8	18 + 18 = 36
9 + 9 = 18	½ of 18 = 9	19 + 19 = 38
10 + 10 = 20	½ of 20 = 10	20 + 20 = 40

Key Instant Recall Facts

Year 2 – Spring 1

I know the multiplication and division facts for the 10 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**.

10 × 1 = 10	10 ÷ 10 = 1
10 × 2 = 20	20 ÷ 10 = 2
10 × 3 = 30	30 ÷ 10 = 3
10 × 4 = 40	40 ÷ 10 = 4
10 × 5 = 50	50 ÷ 10 = 5
10 × 6 = 60	60 ÷ 10 = 6
10 × 7 = 70	70 ÷ 10 = 7
10 × 8 = 80	80 ÷ 10 = 8
10 × 9 = 90	90 ÷ 10 = 9
10 × 10 = 100	100 ÷ 10 = 10
10 × 11 = 110	110 ÷ 10 = 11
10 × 12 = 120	120 ÷ 10 = 12

Key Vocabulary

What is 10 multiplied by 3?

What is 10 times 9?

What is 70 divided by 10?

What is ten lots of 8?

Ten 6s are?

Ten groups of 7 make?

Share 80 into 10 groups. How many is in each group?

They should be able to answer these questions in any order, including missing number questions e.g. 10 × ◯ = 80 or ◯ ÷ 10 = 6.

The children will be expected to recall answers to facts out of order instantly (within 5 seconds)

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.

Pronunciation – Make sure that your child is pronouncing the numbers correctly and not getting confused between thirt**een** and thirt**y**.

Test the Parent – Your child can make up their own tricky division questions for you e.g. *What is 70 divided by 7?* They need to be able to multiply to create these questions.

Apply these facts to real life situations – How many toes are in your house? How many fingers are in your class? What other multiplication and division questions can your child make up?

Songs and Chants – Listen to fun multiplication songs and chants online such as: https://www.youtube.com/watch?v=zGxsCk2ppcI . You could even create your own song! If your child creates their own song, this can make the times tables even more memorable.

Explore – Encourage your child to spot patterns in numbers. Can they predict what 8 lots of 10 will be? Can they predict what 56 lots of 10 will be? Can they explain why a zero is in each multiple of 10?

Test the Parent – Your child can make up their own tricky division questions for you e.g. *What is 90 divided by 10?* They need to be able to multiply to create these questions.

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

Play games – Use the White Rose '1 minute maths' app
Play 'hit the button'. Available for free online or as a paid app. https://www.topmarks.co.uk/maths-games/hit-the-button

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Key Instant Recall Facts

Year 2 – Spring 2

I know the multiplication and division facts for the 5 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**.

5 × 1 = 5	5 ÷ 5 = 1
5 × 2 = 10	10 ÷ 5 = 2
5 × 3 = 15	15 ÷ 5 = 3
5 × 4 = 20	20 ÷ 5 = 4
5 × 5 = 25	25 ÷ 5 = 5
5 × 6 = 30	30 ÷ 5 = 6
5 × 7 = 35	35 ÷ 5 = 7
5 × 8 = 40	40 ÷ 5 = 8
5 × 9 = 45	45 ÷ 5 = 9
5 × 10 = 50	50 ÷ 5 = 10
5 × 11 = 55	55 ÷ 5 = 11
5 × 12 = 60	60 ÷ 5 = 12

Key Vocabulary

What is 5 multiplied by 7?

What is 5 times 9?

What is 60 divided by 5?

What is five lots of 8?

Five 6s are?

Five groups of 7 make?

Share 45 into 5 groups.
How many is in each group?

They should be able to answer these questions in any order, including missing number questions e.g. 5 × ◯ = 40 or ◯ ÷ 5 = 9.

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.

Songs and Chants – Listen to fun multiplication songs and chants online such as: https://www.youtube.com/watch?v=KPffpuHYIhc . You could even create your own song! If your child creates their own song, this can make the times tables even more memorable.

Spot patterns – What patterns can your child spot in the 5 times table? Are there any similarities with the 10 times table?

Test the Parent – Your child can make up their own tricky division questions for you e.g. *What is 45 divided by 5?* They need to be able to multiply to create these questions.

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

Play games – Use the White Rose '1 minute maths' app
Play 'hit the button'. Available for free online or as a paid app.
https://www.topmarks.co.uk/maths-games/hit-the-button

Key Instant Recall Facts

Year 2 – Summer 1

I can tell the time to the nearest 5 minutes.

I can tell the time to the nearest minute.

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

Children need to be able to tell the time using an analogue clock with hands. This target can be broken down into several steps.

- I can tell the time to the nearest quarter hour.
- I can tell the time to the nearest five minutes.

The next step:

- I can tell the time to the nearest minute.

Key Vocabulary	
one	eleven
two	twelve
three	o'clock
four	half past
five	quarter past
six	quarter to
seven	Minutes
eight	hours
nine	Seconds
ten	ten minutes past …
	twenty-five minutes to …

Top Tips

The secret to success is practising **little** and **often**. If you would like more ideas, please speak to your child's teacher.

Use what you already know: Children should already be able to recognise and tell the time to the nearest hour and the nearest half hour. Use the ability to chant in 5s to help understand the minutes 'past' the hour.

Top Tip: If your child is finding things a bit tricky, don't over complicate with minutes 'past' and 'to the hour' to begin with. Convert the time to digital e.g. the clocks above would be 7:45 and 12:15. Build confidence before then developing the language skills of communicating the time as minutes to the hour and past the hour. It is often this part that children find the most tricky.

Play
Play Maths frame 'Telling the Time' game online: https://mathsframe.co.uk/en/resources/resource/116/telling-the-time

Talk about time - Discuss what time things happen. When does your child wake up? What time do they eat breakfast? Make sure that you have an analogue clock visible in your house or that your child wears a watch with hands. Look at clocks around the house and identify the time. Draw clocks and think where the hands could go.

Ask your child the time regularly – You could also give your child some responsibility for watching the clock :
"The cakes need to come out of the oven at quarter past four."
"We need to leave the house at half past eight."

Remember lots of children struggle with concept of telling the time at first. Don't get frustrated, but don't give up. Keep revisiting and going over the basics. If you excuse the pun, it can sometimes take a little … time!

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Key Instant Recall Facts

Year 2 – Summer 2

I can add multiples of 10

I can get quicker at adding single digits and multiples of 10

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	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10	11
2	3	4	5	6	7	8	9	10	11	12
3	4	5	6	7	8	9	10	11	12	13
4	5	6	7	8	9	10	11	12	13	14
5	6	7	8	9	10	11	12	13	14	15
6	7	8	9	10	11	12	13	14	15	16
7	8	9	10	11	12	13	14	15	16	17
8	9	10	11	12	13	14	15	16	17	18
9	10	11	12	13	14	15	16	17	18	19
10	11	12	13	14	15	16	17	18	19	20

The children should notice patterns with adding single digit numbers when they add multiples of 10. This should be done at speed.

+	10	20	30	40	50	60	70	80	90	100
10	20	30	40	50	60	70	80	90	100	110
20	30	40	50	60	70	80	90	100	110	120
30	40	50	60	70	80	90	100	110	120	130
40	50	60	70	80	90	100	110	120	130	140
50	60	70	80	90	100	110	120	130	140	150
60	70	80	90	100	110	120	130	140	150	160
70	80	90	100	110	120	130	140	150	160	170
80	90	100	110	120	130	140	150	160	170	180
90	100	110	120	130	140	150	160	170	180	190
100	110	120	130	140	150	160	170	180	190	200

Key Vocabulary

30 + 40 = 70

80 + 60 = 140

What is the total of 90 and 20?

What is 10 x 5 add 10 x 3?

If 4 add 3 is 6, what is 40 add 30?

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.

Use what you already know – Encourage your child to find the connection between adding single digits and then adding multiples of 10 can they spot the patterns. This is a great chance to brush up on simple addition facts and increase speed of 1 digit plus 1 digit arithmetic.

Practise online – Play games – Use the White Rose '1 minute maths' app
Play 'hit the button'. Available for free online or as a paid app. https://www.topmarks.co.uk/maths-games/hit-the-button