



Year 1 Autumn Term

Top Tips

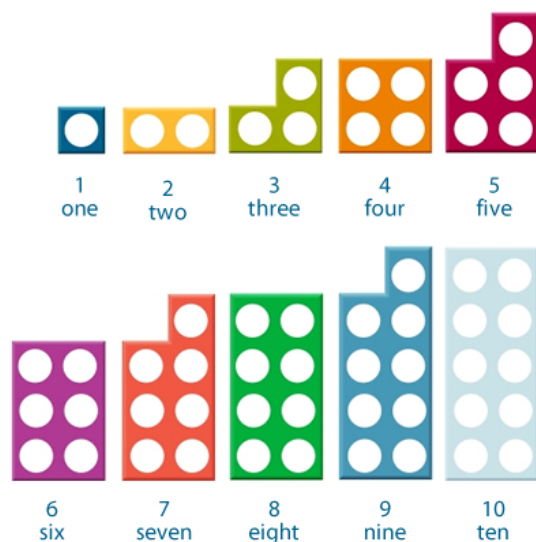
The secret to success is practising little and often. Use time wisely. Can you practise these KIRFs while walking to school or during a car journey? You don't need to practise them all at once: perhaps you could have a fact of the day. If you would like more ideas, please speak to your child's teacher.

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 5.

Play games – You can play number bond pairs online at www.conkermaths.com and then see how many questions you can answer in just one minute.

Numicon Pieces



Key Instant Recall Facts (KIRFs)

By the end of this term, children should know the following facts. The aim is for them to recall these facts instantly. They are intended to be challenging and it is intended that children will be taught the necessary maths in lessons.

I know number bonds for each number to 6.

$$0 + 1 = 1$$

$$1 + 0 = 1$$

$$0 + 2 = 2$$

$$1 + 1 = 2$$

$$2 + 0 = 2$$

$$0 + 3 = 3$$

$$1 + 2 = 3$$

$$2 + 1 = 3$$

$$3 + 0 = 3$$

$$0 + 4 = 4$$

$$1 + 3 = 4$$

$$2 + 2 = 4$$

$$3 + 1 = 4$$

$$4 + 0 = 4$$

$$0 + 5 = 5$$

$$1 + 4 = 5$$

$$2 + 3 = 5$$

$$3 + 2 = 5$$

$$4 + 1 = 5$$

$$5 + 0 = 5$$

$$0 + 6 = 6$$

$$1 + 5 = 6$$

$$2 + 4 = 6$$

$$3 + 3 = 6$$

$$4 + 2 = 6$$

$$5 + 1 = 6$$

$$6 + 0 = 6$$

They should be able to answer these questions in any order, including missing number questions

e.g. $3 + \bigcirc = 5$ or $4 - \bigcirc = 2$.

Key Vocabulary

What is 3 **add** 2?

What is 2 **plus** 2?

What is 5 **take away** 2?

What is 1 **less than** 4?



Year 1 Spring Term 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.

Use practical everyday resources. Double my coins, find half of these sweets. I need to buy double 4 apples at the supermarket. Use board games with dice to practise finding double.

Ping Pong – In this game, the parent says, "Ping," and the child replies, "Pong." Then the parent says a number and the child doubles it. For a harder version, the adult can say, "Pong." The child replies, "Ping," and then halves the next number given.

Practise online – Go to www.conkermaths.com and see how many questions you can answer in just 90 seconds.

Key Instant Recall Facts (KIRFs)

By the end of this term, children should know the following facts. The aim is for them to recall these facts instantly. They are intended to be challenging and it is intended that children will be taught the necessary maths in lessons.

I know doubles and halves of numbers to 10.

$$0 + 0 = 0$$

$$\frac{1}{2} \text{ of } 0 = 0$$

$$1 + 1 = 2$$

$$\frac{1}{2} \text{ of } 2 = 1$$

$$2 + 2 = 4$$

$$\frac{1}{2} \text{ of } 4 = 2$$

$$3 + 3 = 6$$

$$\frac{1}{2} \text{ of } 6 = 3$$

$$4 + 4 = 8$$

$$\frac{1}{2} \text{ of } 8 = 4$$

$$5 + 5 = 10$$

$$\frac{1}{2} \text{ of } 10 = 5$$

$$6 + 6 = 12$$

$$7 + 7 = 14$$

$$8 + 8 = 16$$

$$9 + 9 = 18$$

$$10 + 10 = 20$$



We encourage children to prove their answers using practical resources, drawing pictures or showing how they use their mental maths to work out and answer. Saying 'I just know' does not demonstrate their understanding.

Key Vocabulary

What is **double** 9?

What is **half** of 6?

Prove to me that double 5 is ten.



Year 1 Spring Term 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 four carrots on their plate and you give them six more. Can they predict how many they will have now? Making 10p in different ways. Arranging 10 objects in different ways.

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 – You can play number bond pairs online at www.conkermaths.com and then see how many questions you can answer in just one minute. There are lots of other games which investigate number bonds to 10, try:

Key Instant Recall Facts (KIRFs)

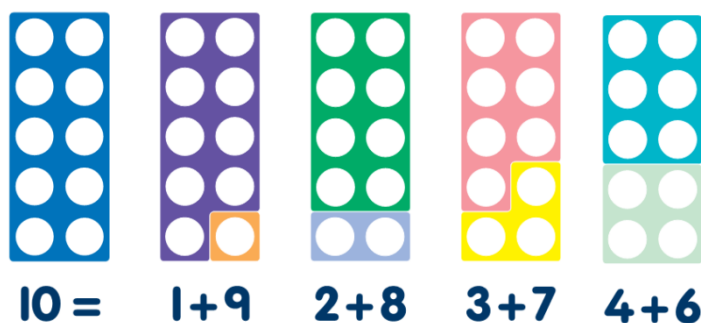
By the end of this term, children should know the following facts. The aim is for them to recall these facts instantly. They are intended to be challenging and it is intended that children will be taught the necessary maths in lessons.

I know number bonds to 10.

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

They should be able to answer these questions in any order, including missing number questions

e.g. $6 + \bigcirc = 10$ or $10 - \bigcirc = 3$.



Key Vocabulary

What is 3 **add** 7?

What is 2 **plus** 8?

What is 10 **take away** 2?

What is 1 **less than** 10?

I have 4 buttons, **how many more** will I need to make 10?



Year 1 Summer Term I

Key Instant Recall Facts (KIRFs)

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.

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.

Play "What's the time Mr Wolf?"— You could also give your child some responsibility for watching the clock:

Read books about time

Online time games:

www.ictgames.com

http://www.sheppardsoftware.com/mathgames/earlymath/on_time_game.swf

<http://www.topmarks.co.uk/maths-games/5-7-years/measures>

By the end of this term, children should know the following facts. The aim is for them to recall these facts instantly. They are intended to be challenging and it is intended that children will be taught the necessary maths in lessons.

I can tell the time.

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.

Key Vocabulary

Twelve **o'clock**

Half past two

What will the **time** be in one hours' time?

What time is it?





Year 1 Summer Term 2

Key Instant Recall Facts (KIRFs)

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.

Encourage children to use their fingers or counting on/back mentally for bonds that they are not confident with. Help them to see relationships between near doubles and number bonds to ten to help them.

Use practical examples to help them find different combinations.

Display number facts around the house to help them to internalise it.

In the same way that you practise spellings, practise learning bonds for each number.

Online games:

<http://www.topmarks.co.uk/math-s-games/hit-the-button>

<http://www.ictgames.com/numberFacts.htm>

By the end of this term, children should know the following facts. The aim is for them to recall these facts instantly. They are intended to be challenging and it is intended that children will be taught the necessary Maths in lessons.

I know number bonds for each number to 10.

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

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



Key Vocabulary

What do I **add** to 5 to make 10?

What is 10 **take away** 6?

What is 3 **less than** 10?

How many more than 2 is 10?



Year 2 Autumn Term 1

Key Instant Recall Facts (KIRFs)

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. $17 + 3 = 20$).

Use practical resources – Make collections of 20 objects. Ask questions such as, "How many more conkers 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 – You can play number bond pairs online at www.conkermaths.com and then see how many questions you can answer in just one minute.

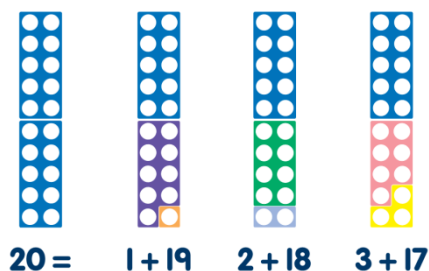
By the end of this term, children should know the following facts. The aim is for them to recall these facts instantly. They are intended to be challenging and it is intended that children will be taught the necessary maths in lessons.

I know number bonds to 20.

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

They should be able to answer these questions in any order, including missing number questions e.g.

$$19 + \bigcirc = 20 \text{ or } 20 - \bigcirc = 8.$$



Key Vocabulary

What do I **add** to 5 to make 20?

What is 20 **take away** 6?

What is 3 **less than** 20?



Year 2 Autumn Term 2

Key Instant Recall Facts (KIRFs)

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 – You can buy Times Tables CDs or find multiplication songs and chants online. 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 $2 \times 5 = 10$, they can use this fact to work out that $2 \times 6 = 12$.

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.

By the end of this term, children should know the following facts. The aim is for them to recall these facts instantly. They are intended to be challenging and it is intended that children will be taught the necessary maths in lessons.

I know the multiplication and division facts for the 2 times table.

$$2 \times 1 = 2$$

$$2 \div 2 = 1$$

$$2 \times 2 = 4$$

$$4 \div 2 = 2$$

$$2 \times 3 = 6$$

$$6 \div 2 = 3$$

$$2 \times 4 = 8$$

$$8 \div 2 = 4$$

$$2 \times 5 = 10$$

$$10 \div 2 = 5$$

$$2 \times 6 = 12$$

$$12 \div 2 = 6$$

$$2 \times 7 = 14$$

$$14 \div 2 = 7$$

$$2 \times 8 = 16$$

$$16 \div 2 = 8$$

$$2 \times 9 = 18$$

$$18 \div 2 = 9$$

$$2 \times 10 = 20$$

$$20 \div 2 = 10$$

$$2 \times 11 = 22$$

$$22 \div 2 = 11$$

$$2 \times 12 = 24$$

$$24 \div 2 = 12$$

They should be able to answer these questions in any order, including missing number questions e.g.

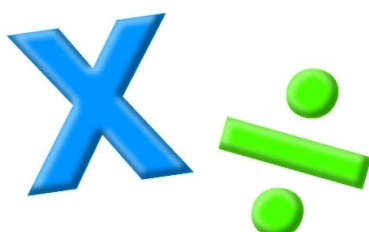
$$2 \times \bigcirc = 8 \text{ or } \bigcirc \div 2 = 6.$$

Key Vocabulary

What is 2 **multiplied by** 7?

What is 2 **times** 9?

What is 12 **divided by** 2?





Year 2 Spring Term I

Key Instant Recall Facts (KIRFs)

By the end of this term, children should know the following facts. The aim is for them to recall these facts instantly. They are intended to be challenging and it is intended that children will be taught the necessary maths in lessons.

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 the 2 times table and double facts.

Ping Pong – In this game, the parent says, "Ping," and the child replies, "Pong." Then the parent says a number and the child doubles it. For a harder version, the adult can say, "Pong." The child replies, "Ping," and then halves the next number given.

Practise online – Go to www.conkermaths.com and see how many questions you can answer in just 90 seconds.

I know doubles and halves of numbers to 20.

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



Key Vocabulary

What is **double** 9?

What is **half** of 14?



Year 2 Spring Term 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.

Pronunciation – Make sure that your child is pronouncing the numbers correctly and not getting confused between thirteen and thirty.

Songs and Chants – You can buy Times Tables CDs or find multiplication songs and chants online. If your child creates their own song, this can make the times tables even more memorable.

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? What other multiplication and division questions can your child make up?

Key Instant Recall Facts (KIRFs)

By the end of this term, children should know the following facts. The aim is for them to recall these facts instantly. They are intended to be challenging and it is intended that children will be taught the necessary maths in lessons.

I know the multiplication and division facts for the 10 times table

$$10 \times 1 = 10$$

$$10 \div 10 = 1$$

$$10 \times 2 = 20$$

$$20 \div 10 = 2$$

$$10 \times 3 = 30$$

$$30 \div 10 = 3$$

$$10 \times 4 = 40$$

$$40 \div 10 = 4$$

$$10 \times 5 = 50$$

$$50 \div 10 = 5$$

$$10 \times 6 = 60$$

$$60 \div 10 = 6$$

$$10 \times 7 = 70$$

$$70 \div 10 = 7$$

$$10 \times 8 = 80$$

$$80 \div 10 = 8$$

$$10 \times 9 = 90$$

$$90 \div 10 = 9$$

$$10 \times 10 = 100$$

$$100 \div 10 = 10$$

$$10 \times 11 = 110$$

$$110 \div 10 = 11$$

$$10 \times 12 = 120$$

$$120 \div 10 = 12$$

They should be able to answer these questions in any order, including missing number questions e.g.

$$10 \times \bigcirc = 80 \text{ or } \bigcirc \div 10 = 6.$$

Multiplying by 10

**When you multiply by 10,
all the digits move 1
place to the left and a 0
is added.**

	2	3
$\times 10$	20	30
	200	300
	2000	3000

$\times 10$

Key Vocabulary

What is 10 multiplied by 3?

What is 10 times 9?

What is 70 divided by 10?



Year 2 Summer Term I

Key Instant Recall Facts (KIRFs)

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.

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.

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."

By the end of this term, children should know the following facts. The aim is for them to recall these facts instantly. They are intended to be challenging and it is intended that children will be taught the necessary maths in lessons.

I can tell the time.

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

Key Vocabulary

Twelve o'clock

Half past two

Quarter past three

Quarter to nine

Five past one

Twenty-five to ten





Year 2 Summer Term 2

Key Instant Recall Facts (KIRFs)

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 – You can buy Times Tables CDs or find multiplication songs and chants online. 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.

By the end of this term, children should know the following facts. The aim is for them to recall these facts instantly. They are intended to be challenging and it is intended that children will be taught the necessary maths in lessons.

I know the multiplication and division facts for the 5 times table.

$5 \times 1 = 5$	$5 \div 5 = 1$
$5 \times 2 = 10$	$10 \div 5 = 2$
$5 \times 3 = 15$	$15 \div 5 = 3$
$5 \times 4 = 20$	$20 \div 5 = 4$
$5 \times 5 = 25$	$25 \div 5 = 5$
$5 \times 6 = 30$	$30 \div 5 = 6$
$5 \times 7 = 35$	$35 \div 5 = 7$
$5 \times 8 = 40$	$40 \div 5 = 8$
$5 \times 9 = 45$	$45 \div 5 = 9$
$5 \times 10 = 50$	$50 \div 5 = 10$
$5 \times 11 = 55$	$55 \div 5 = 11$
$5 \times 12 = 60$	$60 \div 5 = 12$

They should be able to answer these questions in any order, including missing number questions e.g.

$$5 \times \bigcirc = 40 \text{ or } \bigcirc \div 5 = 9.$$

This picture and online story will help you remember $5 \times 9 = 45$

$$5 \text{ (Hive)} \times 9 \text{ (Sign)} = 45 \text{ (Fort E Dive)}$$



Key Vocabulary

What is 5 **multiplied by** 7?

What is 5 **times** 9?

What is 60 **divided by** 5?



Year 3 Autumn term I

Key Instant Recall Facts (KIRFs)

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 doubles and near doubles - If you know that $6 + 6 = 12$, how can you work out $6 + 7$? What about $5 + 7$?

Play games - There are missing number questions at www.conkermaths.com. See how many questions you can answer in just one minute.

By the end of this term, children should know the following facts. The aim is for them to recall these facts instantly. They are intended to be challenging and it is intended that children will be taught the necessary maths in lessons.

I know number bonds for all numbers to 20.

$$2 + 9 = 11$$

$$3 + 8 = 11$$

$$4 + 7 = 11$$

$$5 + 6 = 11$$

$$3 + 9 = 12$$

$$4 + 8 = 12$$

$$5 + 7 = 12$$

$$6 + 6 = 12$$

$$4 + 9 = 13$$

$$5 + 8 = 13$$

$$6 + 7 = 13$$

$$5 + 9 = 14$$

$$6 + 8 = 14$$

$$7 + 7 = 14$$

$$6 + 9 = 15$$

$$7 + 8 = 15$$

$$7 + 9 = 16$$

$$8 + 8 = 16$$

$$8 + 9 = 17$$

$$9 + 9 = 18$$

Example of a fact family

$$6 + 9 = 15$$

$$9 + 6 = 15$$

$$15 - 9 = 6$$

$$15 - 9 = 6$$

Examples of other facts

$$4 + 5 = 9$$

$$13 + 5 = 18$$

$$19 - 7 = 12$$

$$10 - 6 = 4$$

This list includes the most challenging facts but children will need to learn all number bonds for each number to 20 (e.g. $15 + 2 = 17$). This includes related subtraction facts (e.g. $17 - 2 = 15$).

$$1 + 9 = 10$$

$$9 + 1 = 10$$

$$10 - 1 = 9$$

$$10 - 9 = 1$$

Key Vocabulary

What do I **add** to 5 to make 19?

What is 17 **take away** 6?

What is 13 **less than** 15?

How many more than 8 is 11?

What is the **difference** between 9 and 13?



Year 3 Autumn term 2

Key Instant Recall Facts (KIRFs)

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 – You can buy Times Tables CDs or find multiplication songs and chants online. If your child creates their own song, this can make the times tables even more memorable.

Buy one get three free – If your child knows one fact (e.g. $3 \times 5 = 15$), 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. $3 \times 12 = 36$. The answer to the multiplication is 36, so $36 \div 3 = 12$ and $36 \div 12 = 3$

By the end of this term, children should know the following facts. The aim is for them to recall these facts instantly. They are intended to be challenging and it is intended that children will be taught the necessary maths in lessons.

I know the multiplication and division facts for the 3 times table.

$3 \times 1 = 3$	$1 \times 3 = 3$	$3 \div 3 = 1$	$3 \div 1 = 3$
$3 \times 2 = 6$	$2 \times 3 = 6$	$6 \div 3 = 2$	$6 \div 2 = 3$
$3 \times 3 = 9$	$3 \times 3 = 9$	$9 \div 3 = 3$	$9 \div 3 = 3$
$3 \times 4 = 12$	$4 \times 3 = 12$	$12 \div 3 = 4$	$12 \div 4 = 3$
$3 \times 5 = 15$	$5 \times 3 = 15$	$15 \div 3 = 5$	$15 \div 5 = 3$
$3 \times 6 = 18$	$6 \times 3 = 18$	$18 \div 3 = 6$	$18 \div 6 = 3$
$3 \times 7 = 21$	$7 \times 3 = 21$	$21 \div 3 = 7$	$21 \div 7 = 3$
$3 \times 8 = 24$	$8 \times 3 = 24$	$24 \div 3 = 8$	$24 \div 8 = 3$
$3 \times 9 = 27$	$9 \times 3 = 27$	$27 \div 3 = 9$	$27 \div 9 = 3$
$3 \times 10 = 30$	$10 \times 3 = 30$	$30 \div 3 = 10$	$30 \div 10 = 3$
$3 \times 11 = 33$	$11 \times 3 = 33$	$33 \div 3 = 11$	$33 \div 11 = 3$
$3 \times 12 = 36$	$12 \times 3 = 36$	$36 \div 3 = 12$	$36 \div 12 = 3$

They should be able to answer these questions in any order, including missing number questions e.g.

$$3 \times \bigcirc = 18 \text{ or } \bigcirc \div 3 = 11.$$

Key Vocabulary

What is 3 **multiplied by** 8?

What is 8 **times** 3?

What is 24 **divided by** 3?



Year 3 Spring 1

Key Instant Recall Facts (KIRFs)

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 rhymes and memory games—The rhyme, Thirty days hath September, can help children remember which months have 30 days. There are poems describing the months of the year in order.

Use calendars – If you have a calendar for the new year, your child could be responsible for recording the birthdays of friends and family members in it. Your child could even make their own calendar.

How long is a minute? – Ask your child to sit with their eyes closed for exactly one minute while you time them. Can they guess the length of a minute? Carry out different activities for one minute. How many times can they jump in sixty seconds?

By the end of this term, children should know the following facts. The aim is for them to recall these facts instantly. They are intended to be challenging and it is intended that children will be taught the necessary maths in lessons.

I can recall facts about durations of time.

There are 60 seconds in a minute.
There are 60 minutes in an hour.
There are 24 hours in a day.
There are 7 days in a week.
There are 12 months in a year.
There are 365 days in a year.
There are 366 days in a leap year.

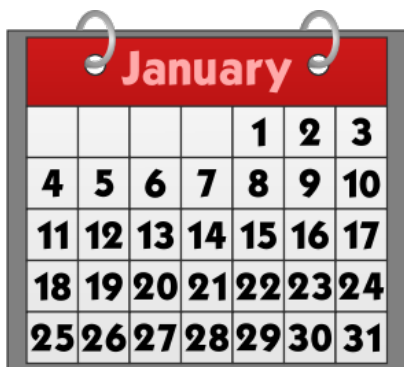
Number of days in each month

January	31	July	31
February	28/29	August	31
March	31	September	30
April	30	October	31
May	31	November	30
June	30	December	31

Children also need to know the order of the months in a year. They should be able to apply these facts to answer questions, such as:

What day comes after 30th April?

What day comes before 1st February?



30 days have **September, April, June and November.**
All the rest have **31** except **February** alone which has but **28** days clear and **29** in each Leap Year



Year 3 Spring 2

Key Instant Recall Facts (KIRFs)

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.

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?

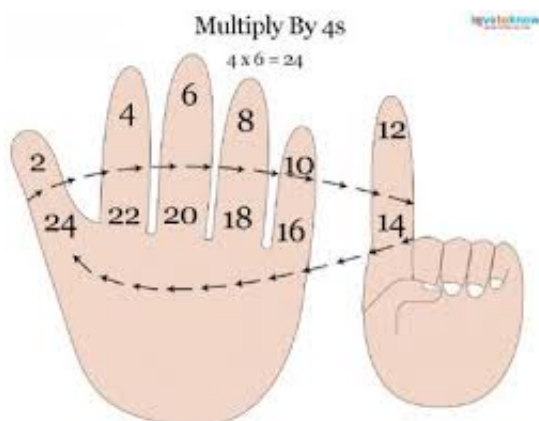
By the end of this term, children should know the following facts. The aim is for them to recall these facts instantly. They are intended to be challenging and it is intended that children will be taught the necessary maths in lessons.

I know the multiplication and division facts for the 4 times table.

$4 \times 1 = 4$	$1 \times 4 = 4$	$4 \div 4 = 1$	$4 \div 1 = 4$
$4 \times 2 = 8$	$2 \times 4 = 8$	$8 \div 4 = 2$	$8 \div 2 = 4$
$4 \times 3 = 12$	$3 \times 4 = 12$	$12 \div 4 = 3$	$12 \div 3 = 4$
$4 \times 4 = 16$	$4 \times 4 = 16$	$16 \div 4 = 4$	$16 \div 4 = 4$
$4 \times 5 = 20$	$5 \times 4 = 20$	$20 \div 4 = 5$	$20 \div 5 = 4$
$4 \times 6 = 24$	$6 \times 4 = 24$	$24 \div 4 = 6$	$24 \div 6 = 4$
$4 \times 7 = 28$	$7 \times 4 = 28$	$28 \div 4 = 7$	$28 \div 7 = 4$
$4 \times 8 = 32$	$8 \times 4 = 32$	$32 \div 4 = 8$	$32 \div 8 = 4$
$4 \times 9 = 36$	$9 \times 4 = 36$	$36 \div 4 = 9$	$36 \div 9 = 4$
$4 \times 10 = 40$	$10 \times 4 = 40$	$40 \div 4 = 10$	$40 \div 10 = 4$
$4 \times 11 = 44$	$11 \times 4 = 44$	$44 \div 4 = 11$	$44 \div 11 = 4$
$4 \times 12 = 48$	$12 \times 4 = 48$	$48 \div 4 = 12$	$48 \div 12 = 4$

They should be able to answer these questions in any order, including missing number questions e.g.

$$4 \times \bigcirc = 16 \text{ or } \bigcirc \div 4 = 7.$$



Key Vocabulary

What is 4 **multiplied by** 6?

What is 8 **times** 4?

What is 24 **divided by** 4?



Year 3 Summer 1

Key Instant Recall Facts (KIRFs)

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.

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. Once your child is confident telling the time, see if you can find more challenging clocks e.g. with Roman numerals or no numbers marked.

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 twenty-two minutes past four exactly."

"We need to leave the house at twenty-five to nine."



By the end of this term, children should know the following facts. The aim is for them to recall these facts instantly. They are intended to be challenging and it is intended that children will be taught the necessary maths in lessons.

I can tell the time.

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

Key Vocabulary

Twelve **o'clock**

Half past two

Quarter past three

Quarter to nine

Five **past** one

Twenty-five **to** ten



Year 3 Summer 2

Key Instant Recall Facts (KIRFs)

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 – You can buy Times Tables CDs or find multiplication songs and chants online. If your child creates their own song, this can make the times tables even more memorable.

Double your fours – Multiplying a number by 8 is the same as multiply by 4 and then doubling the answer. $8 \times 4 = 32$ and double 32 is 64, so $8 \times 8 = 64$.

Five six seven eight – fifty-six is seven times eight ($56 = 7 \times 8$).

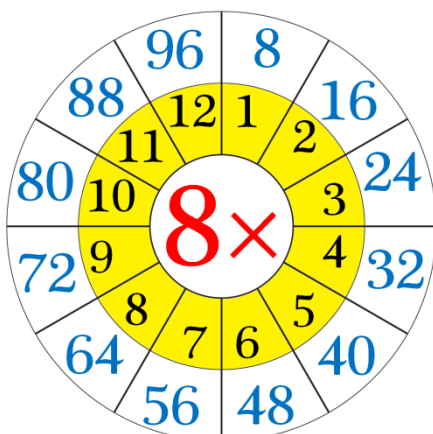
Use memory tricks – For those hard-to-remember facts, www.multiplication.com has some strange picture stories to help children remember.

By the end of this term, children should know the following facts. The aim is for them to recall these facts instantly. They are intended to be challenging and it is intended that children will be taught the necessary maths in lessons.

I know the multiplication and division facts for the 8 times table.

$8 \times 1 = 8$	$1 \times 8 = 8$	$8 \div 8 = 1$	$8 \div 1 = 8$
$8 \times 2 = 16$	$2 \times 8 = 16$	$16 \div 8 = 2$	$16 \div 2 = 8$
$8 \times 3 = 24$	$3 \times 8 = 24$	$24 \div 8 = 3$	$24 \div 3 = 8$
$8 \times 4 = 32$	$4 \times 8 = 32$	$32 \div 8 = 4$	$32 \div 4 = 8$
$8 \times 5 = 40$	$5 \times 8 = 40$	$40 \div 8 = 5$	$40 \div 5 = 8$
$8 \times 6 = 48$	$6 \times 8 = 48$	$48 \div 8 = 6$	$48 \div 6 = 8$
$8 \times 7 = 56$	$7 \times 8 = 56$	$56 \div 8 = 7$	$56 \div 7 = 8$
$8 \times 8 = 64$	$8 \times 8 = 64$	$64 \div 8 = 8$	$64 \div 8 = 8$
$8 \times 9 = 72$	$9 \times 8 = 72$	$72 \div 8 = 9$	$72 \div 9 = 8$
$8 \times 10 = 80$	$10 \times 8 = 80$	$80 \div 8 = 10$	$80 \div 10 = 8$
$8 \times 11 = 88$	$11 \times 8 = 88$	$88 \div 8 = 11$	$88 \div 11 = 8$
$8 \times 12 = 96$	$12 \times 8 = 96$	$96 \div 8 = 12$	$96 \div 12 = 8$

They should be able to answer these questions in any order, including missing number questions e.g. $8 \times \bigcirc = 16$ or $\bigcirc \div 8 = 7$.



Key Vocabulary

What is 8 **multiplied by** 6?

What is 8 **times** 8?

What is 24 **divided by** 8?