



Key Instant Recall Facts

Year 1 – Autumn 2

I know number bonds for each number to 6.

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

$0 + 1 = 1$	$0 + 4 = 4$	$0 + 6 = 6$
$1 + 0 = 1$	$1 + 3 = 4$	$1 + 5 = 6$
	$2 + 2 = 4$	$2 + 4 = 6$
$0 + 2 = 2$	$3 + 1 = 4$	$3 + 3 = 6$
$1 + 1 = 2$	$4 + 0 = 4$	$4 + 2 = 6$
$2 + 0 = 2$		$5 + 1 = 6$
	$0 + 5 = 5$	$6 + 0 = 6$
$0 + 3 = 3$	$1 + 4 = 5$	
$1 + 2 = 3$	$2 + 3 = 5$	
$2 + 1 = 3$	$3 + 2 = 5$	
$3 + 0 = 3$	$4 + 1 = 5$	
	$5 + 0 = 5$	

Key Vocabulary

What is 3 **add** 2?

What is 2 **more than** 2?

What is 5 **subtract** 2?

What is 1 **less than** 4?

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

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 5.

Play games – All children have access to Numbots <https://play.numbots.com/#/intro>. Playing this on a regular basis will speed up children's recall of facts.



Key Instant Recall Facts

Year 1 – Spring 1

I know doubles and halves of 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**.

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

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

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

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

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

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

$6 + 6 = 12$

$7 + 7 = 14$

$8 + 8 = 16$

$9 + 9 = 18$

$10 + 10 = 20$

Key Vocabulary

What is **double** 9?

What is **half** of 6?

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.

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.

Play games – All children have access to Numbots <https://play.numbots.com/#/intro>. Playing this on a regular basis will speed up children's recall of facts.



Key Instant Recall Facts

Year 1 – Spring 2

I know number bonds 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**.

$0 + 10 = 10$

$2 + 8 = 10$

$4 + 6 = 10$

$10 + 0 = 10$

$8 + 2 = 10$

$6 + 4 = 10$

$10 - 10 = 0$

$10 - 8 = 2$

$10 - 6 = 4$

$10 - 0 = 10$

$10 - 2 = 8$

$10 - 4 = 6$

$1 + 9 = 10$

$3 + 7 = 10$

$5 + 5 = 10$

$9 + 1 = 10$

$7 + 3 = 10$

$10 - 5 = 5$

$10 - 9 = 1$

$10 - 7 = 3$

$10 - 1 = 9$

$10 - 3 = 7$

Key Vocabulary

What is 3 **add** 2?

What is 2 **more than** 2?

What is 5 **subtract** 2?

What is 1 **less than** 4?

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

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 – Your child has one potato on their plate and you give them two 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 – All children have access to Numbots <https://play.numbots.com/#/intro>. Playing this on a regular basis will speed up children's recall of facts.



Key Instant Recall Facts

Year 1 – Summer 1

I can add and subtract 1 and 2 to numbers within 20.

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

$1 + 2 = 3$

$2 + 2 = 4$

$3 + 2 = 5$

$4 + 2 = 6$

$5 + 2 = 7$

$6 + 2 = 8$

$7 + 2 = 9$

$8 + 2 = 10$

$9 + 2 = 11$

$10 + 2 = 12$

$11 + 2 = 13$

$12 + 2 = 14$

$13 + 2 = 15$

$14 + 2 = 16$

$15 + 2 = 17$

$16 + 2 = 18$

$17 + 2 = 19$

$18 + 2 = 20$

$20 - 2 = 18$

$19 - 2 = 17$

$18 - 2 = 16$

$17 - 2 = 15$

$16 - 2 = 14$

$15 - 2 = 13$

$13 - 2 = 11$

$12 - 2 = 10$

$11 - 2 = 9$

$10 - 2 = 8$

$9 - 2 = 7$

$8 - 2 = 6$

$7 - 2 = 5$

$6 - 2 = 4$

$5 - 2 = 3$

$4 - 2 = 2$

$3 - 2 = 1$

$2 - 2 = 0$

Key Vocabulary

What is 3 **add** 2?

What is 2 **more than** 2?

What is 5 **subtract** 2?

What is 1 **less than** 4?

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.

Play games – All children have access to Numbots <https://play.numbots.com/#/intro>. Playing this on a regular basis will speed up children's recall of facts.



Key Instant Recall Facts

Year 1 – Summer 2

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**.

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

Key Vocabulary

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

What is 10 **subtract** 6?

What is 3 **less than** 10?

How many more than 2 is 10?

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

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.

Play games – All children have access to Numbots <https://play.numbots.com/#/intro>. Playing this on a regular basis will speed up children's recall of facts.



Key Instant Recall Facts

Year 2 – Autumn 1

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 **subtract** 6?

What is 3 **less than** 20?

How many more than 16 is 20?

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

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. $17 + 3 = 20$).

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 – All children have access to Numbots <https://play.numbots.com/#/intro>. Playing this on a regular basis will speed up children's recall of facts.



Key Instant Recall Facts

Year 2 – Autumn 2

I know the multiplication and division facts for the 2 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**.

$2 \times 1 = 2$

$2 \times 2 = 4$

$2 \times 3 = 6$

$2 \times 4 = 8$

$2 \times 5 = 10$

$2 \times 6 = 12$

$2 \times 7 = 14$

$2 \times 8 = 16$

$2 \times 9 = 18$

$2 \times 10 = 20$

$2 \times 11 = 22$

$2 \times 12 = 24$

$2 \div 2 = 1$

$4 \div 2 = 2$

$6 \div 2 = 3$

$8 \div 2 = 4$

$10 \div 2 = 5$

$12 \div 2 = 6$

$14 \div 2 = 7$

$16 \div 2 = 8$

$18 \div 2 = 9$

$20 \div 2 = 10$

$22 \div 2 = 11$

$24 \div 2 = 12$

Key Vocabulary

What is 2 **multiplied by** 7?

What is 2 **times** 9?

What is 12 **divided by** 2?

They should be able to answer these questions in any order, including missing number questions e.g. $2 \times \bigcirc = 8$ or $\bigcirc \div 2 = 6$.

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 $2 \times 6 = 12$.

Use Times Table Rock Stars – Your child has a TTRS login (<https://play.ttrockstars.com/>). Regular use of this will speed up their recall.

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



Key Instant Recall Facts

Year 2 – Spring 1

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**.

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

Key Vocabulary

What is **double** 9?

What is **half** of 14?

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.

Play games – All children have access to Numbots <https://play.numbots.com/#/intro>. Playing this on a regular basis will speed up children's recall of facts.



Key Instant Recall Facts

Year 2 – Spring 2

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**.

$10 \times 1 = 10$

$10 \div 10 = 1$

$10 \times 2 = 20$

$20 \div 10 = 2$

$10 \times 3 = 30$

$30 \div 10 = 3$

$10 \times 4 = 40$

$40 \div 10 = 4$

$10 \times 5 = 50$

$50 \div 10 = 5$

$10 \times 6 = 60$

$60 \div 10 = 6$

$10 \times 7 = 70$

$70 \div 10 = 7$

$10 \times 8 = 80$

$80 \div 10 = 8$

$10 \times 9 = 90$

$90 \div 10 = 9$

$10 \times 10 = 100$

$100 \div 10 = 10$

$10 \times 11 = 110$

$110 \div 10 = 11$

$10 \times 12 = 120$

$120 \div 10 = 12$

Key Vocabulary

What is 10 **multiplied by** 3?

What is 10 **times** 9?

What is 70 **divided by** 10?

They should be able to answer these questions in any order, including missing number questions e.g. $10 \times \bigcirc = 80$ or $\bigcirc \div 10 = 6$.

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.

Use Times Table Rock Stars – Your child has a TTRS login (<https://play.ttrockstars.com/>). Regular use of this will speed up their recall.

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

Year 2 – Summer 1

I know the multiplication and division facts for the 10 and 2 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**.

$10 \times 1 = 10$	$10 \div 10 = 1$	$2 \times 1 = 2$	$2 \div 2 = 1$
$10 \times 2 = 20$	$20 \div 10 = 2$	$2 \times 2 = 4$	$4 \div 2 = 2$
$10 \times 3 = 30$	$30 \div 10 = 3$	$2 \times 3 = 6$	$6 \div 2 = 3$
$10 \times 4 = 40$	$40 \div 10 = 4$	$2 \times 4 = 8$	$8 \div 2 = 4$
$10 \times 5 = 50$	$50 \div 10 = 5$	$2 \times 5 = 10$	$10 \div 2 = 5$
$10 \times 6 = 60$	$60 \div 10 = 6$	$2 \times 6 = 12$	$12 \div 2 = 6$
$10 \times 7 = 70$	$70 \div 10 = 7$	$2 \times 7 = 14$	$14 \div 2 = 7$
$10 \times 8 = 80$	$80 \div 10 = 8$	$2 \times 8 = 16$	$16 \div 2 = 8$
$10 \times 9 = 90$	$90 \div 10 = 9$	$2 \times 9 = 18$	$18 \div 2 = 9$
$10 \times 10 = 100$	$100 \div 10 = 10$	$2 \times 10 = 20$	$20 \div 2 = 10$
$10 \times 11 = 110$	$110 \div 10 = 11$	$2 \times 11 = 22$	$22 \div 2 = 11$
$10 \times 12 = 120$	$120 \div 10 = 12$	$2 \times 12 = 24$	$24 \div 2 = 12$

Key Vocabulary

What is 10 **multiplied by** 3?

What is 2 **multiplied by** 7?

What is 10 **times** 9?

What is 2 **times** 9?

What is 70 **divided by** 10?

What is 12 **divided by** 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?

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.

Use Times Table Rock Stars – Your child has a TTRS login (<https://play.ttrockstars.com/>). Regular use of this will speed up their recall.

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



Key Instant Recall Facts

Year 2 – Summer 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**.

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

Key Vocabulary

What is 5 **multiplied by** 7?

What is 5 **times** 9?

What is 60 **divided by** 5?

They should be able to answer these questions in any order, including missing number questions e.g. $5 \times \bigcirc = 40$ or $\bigcirc \div 5 = 9$.

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 – 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?

Use Times Table Rock Stars – Your child has a TTRS login (<https://play.ttrockstars.com/>). Regular use of this will speed up their recall.

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



Key Instant Recall Facts

Year 3 – Autumn 1

I know number bonds for all 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**.

$2 + 9 = 11$

$3 + 8 = 11$

$4 + 7 = 11$

$5 + 6 = 11$

$3 + 9 = 12$

$4 + 8 = 12$

$5 + 7 = 12$

$6 + 6 = 12$

$4 + 9 = 13$

$5 + 8 = 13$

$6 + 7 = 13$

$5 + 9 = 14$

$6 + 8 = 14$

$7 + 7 = 14$

$6 + 9 = 15$

$7 + 8 = 15$

$7 + 9 = 16$

$8 + 8 = 16$

$8 + 9 = 17$

$9 + 9 = 18$

Example of a fact family

$6 + 9 = 15$

$9 + 6 = 15$

$15 - 9 = 6$

$15 - 9 = 6$

Examples of other facts

$4 + 5 = 9$

$13 + 5 = 18$

$19 - 7 = 12$

$10 - 6 = 4$

Key Vocabulary

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

What is 17 **subtract** 6?

What is 13 **less than** 15?

How many more than 8 is 11?

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

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. $17 - 2 = 15$).

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 – All children have access to Numbots <https://play.numbots.com/#/intro>. Playing this on a regular basis will speed up children's recall of facts.



Key Instant Recall Facts

Year 3 – Autumn 2

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**.

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

Key Vocabulary

What is 3 **multiplied by** 8?

What is the **product** of 8 and 3?

What is 24 **divided by** 3?

They should be able to answer these questions in any order, including missing number questions e.g. $3 \times \bigcirc = 18$ or $\bigcirc \div 3 = 11$.

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?

Use Times Table Rock Stars– Your child has a TTRS login (<https://play.ttrockstars.com/>). Regular use of this will speed up their recall.

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.

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 $36 \div 12 = 3$



Key Instant Recall Facts

Year 3 – Spring 1

I know how to add two one digit numbers using different methods

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

Examples of near doubles:

$4 + 5 = 9$

$5 + 6 = 11$

$6 + 7 = 13$

$7 + 8 = 15$

$8 + 9 = 17$

Examples of compensating:

$9 + 3 = 12$

$9 + 4 = 13$

$9 + 5 = 14$

$9 + 6 = 15$

$9 + 7 = 16$

$9 + 8 = 17$

Example of bridging:

$7 + 4 = 11$

$7 + 5 = 12$

$7 + 6 = 13$

$8 + 3 = 11$

$8 + 4 = 12$

$8 + 5 = 13$

$8 + 6 = 14$

Key Vocabulary

What do I **add** to 5 to make 12?

What is 13 **subtract** 6?

What is 6 **less than** 15?

How many more than 8 is 11?

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

Compensating and bridging are similar methods.. They involve breaking apart the number you are adding into two parts – one to make 10 and then the rest to add on. E.g. $9 + 3$ becomes $9 + 1 = 10$, then add 2 equalling 12. Once learnt these methods become more efficient than adding on.

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?

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 – All children have access to Numbots <https://play.numbots.com/#/intro>. Playing this on a regular basis will speed up children's recall of facts.



Key Instant Recall Facts

Year 3 – Spring 2

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**.

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

Key Vocabulary

What is 4 **multiplied by** 6?

What is the **product** of 8 and 4?

What is 24 **divided by** 4?

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

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?

Use Times Table Rock Stars– Your child has a TTRS login (<https://play.ttrockstars.com/>). Regular use of this will speed up their recall.

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?



Key Instant Recall Facts

Year 3 – Summer 1

I know the multiplication and division facts for the 3 and 4 times tables

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

$1 \times 3 = 3$	$3 \div 3 = 1$	$1 \times 4 = 4$	$4 \div 4 = 1$
$2 \times 3 = 6$	$6 \div 3 = 2$	$2 \times 4 = 8$	$8 \div 4 = 2$
$3 \times 3 = 9$	$9 \div 3 = 3$	$3 \times 4 = 12$	$12 \div 4 = 3$
$4 \times 3 = 12$	$12 \div 3 = 4$	$4 \times 4 = 16$	$16 \div 4 = 4$
$5 \times 3 = 15$	$15 \div 3 = 5$	$5 \times 4 = 20$	$20 \div 4 = 5$
$6 \times 3 = 18$	$18 \div 3 = 6$	$6 \times 4 = 24$	$24 \div 4 = 6$
$7 \times 3 = 21$	$21 \div 3 = 7$	$7 \times 4 = 28$	$28 \div 4 = 7$
$8 \times 3 = 24$	$24 \div 3 = 8$	$8 \times 4 = 32$	$32 \div 4 = 8$
$9 \times 3 = 27$	$27 \div 3 = 9$	$9 \times 4 = 36$	$36 \div 4 = 9$
$10 \times 3 = 30$	$30 \div 3 = 10$	$10 \times 4 = 40$	$40 \div 4 = 10$
$11 \times 3 = 33$	$33 \div 3 = 11$	$11 \times 4 = 44$	$44 \div 4 = 11$
$12 \times 3 = 36$	$36 \div 3 = 12$	$12 \times 4 = 48$	$48 \div 4 = 12$

Key Vocabulary

What is 7 **multiplied by** 3?

What is 4 **multiplied by** 7?

What is 3 **times** 9?

What is 4 **times** 9?

What is 33 **divided by** 3?

What is 12 **divided by** 4?

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?

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 Times Table Rock Stars – Your child has a TTRS login (<https://play.ttrockstars.com/>). Regular use of this will speed up their recall.

Use missing box type questions too – 3 multiplied by what equals 36? 24 divided by what equals 6?



Key Instant Recall Facts

Year 3 – Summer 2

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**.

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

Key Vocabulary

What is 8 **multiplied by** 6?

What is the **product** of 8 and 8?

What is 24 **divided by** 8?

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

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?

Use Times Table Rock Stars – Your child has a TTRS login (<https://play.ttrockstars.com/>). Regular use of this will speed up their recall.

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.



Key Instant Recall Facts

Year 4 – Autumn 1

I know number bonds to 100.

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

Some examples:

$60 + 40 = 100$	$37 + 63 = 100$
$40 + 60 = 100$	$63 + 37 = 100$
$100 - 40 = 60$	$100 - 63 = 37$
$100 - 60 = 40$	$100 - 37 = 63$
$75 + 25 = 100$	$48 + 52 = 100$
$25 + 75 = 100$	$52 + 48 = 100$
$100 - 25 = 75$	$100 - 52 = 48$
$100 - 75 = 25$	$100 - 48 = 52$

Key Vocabulary

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

What is 100 **subtract** 6?

What is 13 **less than** 100?

How many more than 98 is 100?

What is the **difference** between 89 and 100?

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

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?

Buy one get three free - If your child knows one fact (e.g. $8 + 5 = 13$), can they tell you the other three facts in the same fact family?

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

Play games – All children have access to Numbots <https://play.numbots.com/#/intro>. Playing this on a regular basis will speed up children's recall of facts.



Key Instant Recall Facts

Year 4 – Autumn 2

I know the multiplication and division facts for the 6 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**.

$6 \times 1 = 6$	$1 \times 6 = 6$	$6 \div 6 = 1$	$6 \div 1 = 6$
$6 \times 2 = 12$	$2 \times 6 = 12$	$12 \div 6 = 2$	$12 \div 2 = 6$
$6 \times 3 = 18$	$3 \times 6 = 18$	$18 \div 6 = 3$	$18 \div 3 = 6$
$6 \times 4 = 24$	$4 \times 6 = 24$	$24 \div 6 = 4$	$24 \div 4 = 6$
$6 \times 5 = 30$	$5 \times 6 = 30$	$30 \div 6 = 5$	$30 \div 5 = 6$
$6 \times 6 = 36$	$6 \times 6 = 36$	$36 \div 6 = 6$	$36 \div 6 = 6$
$6 \times 7 = 42$	$7 \times 6 = 42$	$42 \div 6 = 7$	$42 \div 7 = 6$
$6 \times 8 = 48$	$8 \times 6 = 48$	$48 \div 6 = 8$	$48 \div 8 = 6$
$6 \times 9 = 54$	$9 \times 6 = 54$	$54 \div 6 = 9$	$54 \div 9 = 6$
$6 \times 10 = 60$	$10 \times 6 = 60$	$60 \div 6 = 10$	$60 \div 10 = 6$
$6 \times 11 = 66$	$11 \times 6 = 66$	$66 \div 6 = 11$	$66 \div 11 = 6$
$6 \times 12 = 72$	$12 \times 6 = 72$	$72 \div 6 = 12$	$72 \div 12 = 6$

Key Vocabulary

What is 8 **multiplied by** 6?

What is the **product** of 6 and 8?

What is 24 **divided by** 6?

They should be able to answer these questions in any order, including missing number questions e.g. $6 \times \bigcirc = 72$ or $\bigcirc \div 6 = 7$.

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?

Use Times Table Rock Stars– Your child has a TTRS login (<https://play.ttrockstars.com/>). Regular use of this will speed up their recall.

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 threes – Multiplying a number by 6 is the same as multiplying by 3 and then doubling the answer. $7 \times 3 = 21$ and double 21 is 42, so $7 \times 6 = 42$.

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. $6 \times 12 = 72$. The answer to the multiplication is 72, so $72 \div 6 = 12$ and $72 \div 12 = 6$



Key Instant Recall Facts

Year 4 – Spring 1

I know the multiplication and division facts for the 9 and 11 times tables.

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

$9 \times 1 = 9$	$9 \div 9 = 1$	$11 \times 1 = 11$	$11 \div 11 = 1$
$9 \times 2 = 18$	$18 \div 9 = 2$	$11 \times 2 = 22$	$22 \div 11 = 2$
$9 \times 3 = 27$	$27 \div 9 = 3$	$11 \times 3 = 33$	$33 \div 11 = 3$
$9 \times 4 = 36$	$36 \div 9 = 4$	$11 \times 4 = 44$	$44 \div 11 = 4$
$9 \times 5 = 45$	$45 \div 9 = 5$	$11 \times 5 = 55$	$55 \div 11 = 5$
$9 \times 6 = 54$	$54 \div 9 = 6$	$11 \times 6 = 66$	$66 \div 11 = 6$
$9 \times 7 = 63$	$63 \div 9 = 7$	$11 \times 7 = 77$	$77 \div 11 = 7$
$9 \times 8 = 72$	$72 \div 9 = 8$	$11 \times 8 = 88$	$88 \div 11 = 8$
$9 \times 9 = 81$	$81 \div 9 = 9$	$11 \times 9 = 99$	$99 \div 11 = 9$
$9 \times 10 = 90$	$90 \div 9 = 10$	$11 \times 10 = 110$	$110 \div 11 = 10$
$9 \times 11 = 99$	$99 \div 9 = 11$	$11 \times 11 = 121$	$121 \div 11 = 11$
$9 \times 12 = 108$	$108 \div 9 = 12$	$11 \times 12 = 132$	$132 \div 11 = 12$

Key Vocabulary

What is 8 **multiplied by** 6?

What is the **product** of 6 and 8?

What is 24 **divided by** 6?

They should be able to answer these questions in any order, including missing number questions e.g. $9 \times \bigcirc = 54$ or $\bigcirc \div 9 = 11$.

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?

Use Times Table Rock Stars – Your child has a TTRS login (<https://play.ttrockstars.com/>). Regular use of this will speed up their recall.

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

Use your ten times table – Multiply a number by 10 and subtract the original number (e.g. $7 \times 10 - 7 = 70 - 7 = 63$). What do you notice?
What happens if you add your original number instead?
(e.g. $7 \times 10 + 7 = 70 + 7 = 77$)

What do you already know? – Your child will already know many of these facts from the 2, 3, 4, 5, 6, 8 and 10 times tables. It might be worth practising these again!



Key Instant Recall Facts

Year 4 – Spring 2

I know the multiplication and division facts for the 7 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**.

$7 \times 1 = 7$	$1 \times 7 = 7$	$7 \div 7 = 1$	$7 \div 1 = 7$
$7 \times 2 = 14$	$2 \times 7 = 14$	$14 \div 7 = 2$	$14 \div 2 = 7$
$7 \times 3 = 21$	$3 \times 7 = 21$	$21 \div 7 = 3$	$21 \div 3 = 7$
$7 \times 4 = 28$	$4 \times 7 = 28$	$28 \div 7 = 4$	$28 \div 4 = 7$
$7 \times 5 = 35$	$5 \times 7 = 35$	$35 \div 7 = 5$	$35 \div 5 = 7$
$7 \times 6 = 42$	$6 \times 7 = 42$	$42 \div 7 = 6$	$42 \div 6 = 7$
$7 \times 7 = 49$	$7 \times 7 = 49$	$49 \div 7 = 7$	$49 \div 7 = 7$
$7 \times 8 = 56$	$8 \times 7 = 56$	$56 \div 7 = 8$	$56 \div 8 = 7$
$7 \times 9 = 63$	$9 \times 7 = 63$	$63 \div 7 = 9$	$63 \div 9 = 7$
$7 \times 10 = 70$	$10 \times 7 = 70$	$70 \div 7 = 10$	$70 \div 10 = 7$
$7 \times 11 = 77$	$11 \times 7 = 77$	$77 \div 7 = 11$	$77 \div 11 = 7$
$7 \times 12 = 84$	$12 \times 7 = 84$	$84 \div 7 = 12$	$84 \div 12 = 7$

Key Vocabulary

What is 7 **multiplied by** 6?

What is the **product** of 7 and 8?

What is 84 **divided by** 7?

They should be able to answer these questions in any order, including missing number questions e.g. $7 \times \bigcirc = 28$ or $\bigcirc \div 6 = 7$.

Top Tips

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

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.

Order of difficulty – Ask your child to order these facts from the easiest to the most challenging. Can they explain why some facts are easier to remember? Then focus on practising the most challenging facts.

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



Key Instant Recall Facts

Year 4 – Summer 1

I know the multiplication and division facts for all times tables up to 12×12 .

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

Children at the end of Year 4 will complete a Multiplication Tables Check (MTC) to ensure they are fluent in all multiplication tables.

Key Vocabulary

What is 12 **multiplied by** 6?

What is the **product** of 7 and 8?

What is 84 **divided by** 7?

Teaching of the $12 \times$ table should not be required as the only facts not previously taught will be: $12 \times 12 = 144$ and $144 \div 12 = 12$.

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?

Use Times Table Rock Stars– Your child has a TTRS login (<https://play.ttrockstars.com/>). Regular use of this will speed up their recall. Children should be at level 420 on TTRS if they are fluent in all their times tables.

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



Key Instant Recall Facts

Year 4 – Summer 2

I can recognise decimal equivalents of fractions.

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

$$\frac{1}{2} = 0.5$$

$$\frac{1}{10} = 0.1$$

$$\frac{1}{100} = 0.01$$

$$\frac{1}{4} = 0.25$$

$$\frac{2}{10} = 0.2$$

$$\frac{7}{100} = 0.07$$

$$\frac{3}{4} = 0.75$$

$$\frac{5}{10} = 0.5$$

$$\frac{21}{100} = 0.21$$

$$\frac{6}{10} = 0.6$$

$$\frac{75}{100} = 0.75$$

$$\frac{9}{10} = 0.9$$

$$\frac{99}{100} = 0.99$$

Key Vocabulary

How many **tenths** is 0.8?

How many **hundredths** is 0.12?

Write 0.75 as a **fraction**?

Write $\frac{1}{4}$ as a **decimal**?

Children should be able to convert between decimals and fractions for $\frac{1}{2}$, $\frac{1}{4}$, $\frac{3}{4}$ and any number of tenths and hundredths.

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: start with tenths before moving on to hundredths. If you would like more ideas, please speak to your child's teacher.

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



Key Instant Recall Facts

Year 5 – Autumn 1

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

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

$7 \times 10 = 70$

$10 \times 7 = 70$

$70 \div 7 = 10$

$70 \div 10 = 7$

$30 \times 10 = 300$

$10 \times 30 = 300$

$300 \div 30 = 10$

$300 \div 10 = 30$

$0.8 \times 10 = 8$

$10 \times 0.8 = 8$

$8 \div 0.8 = 10$

$8 \div 10 = 0.8$

$6 \times 100 = 600$

$100 \times 6 = 600$

$600 \div 6 = 100$

$600 \div 100 = 6$

$40 \times 100 = 4000$

$100 \times 40 = 4000$

$4000 \div 40 = 100$

$4000 \div 100 = 40$

$0.2 \times 10 = 2$

$10 \times 0.2 = 2$

$2 \div 0.2 = 10$

$2 \div 10 = 0.2$

Key Vocabulary

What is 5 **multiplied by** 10?

What is 10 **times** 0.9?

What is 700 **divided by** 70?

hundreds, tens, ones

tenths, hundredths

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

Top Tips

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



Key Instant Recall Facts

Year 5 – Autumn 2

I know decimal number bonds to 1 and 10.

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

Some examples:

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

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

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

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

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

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

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

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

Key Vocabulary

What do I **add** to 0.8 to make 1?

What is 1 **subtract** 0.06?

What is 1.3 **less than** 10?

How many more than 9.8 is 10?

What is the **difference** between 0.92 and 10?

This list includes some examples of facts that children should know. They should be able to answer questions including missing number questions e.g. $0.49 + \bigcirc = 10$ or $7.2 + \bigcirc = 10$.

Top Tips

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

Buy one get three free - If your child knows one fact (e.g. $8 + 5 = 13$), can they tell you the other three facts in the same fact family?

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

Play games – There are missing number questions at www.conkermaths.com. See how many questions you can answer in just 90 seconds. There is also a number bond pair game to play.



Key Instant Recall Facts

Year 5 – Spring 1

I can recall metric conversions.

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

1 kilogram = 1000 grams

1 kilometre = 1000 metres

1 metre = 100 centimetres

1 metre = 1000 millimetres

1 centimetre = 10 millimetres

1 litre = 1000 millilitres

They should also be able to apply these facts to answer questions.

e.g. How many metres in $1\frac{1}{2}$ km?

Top Tips

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

Look at the prefixes – Can your child work out the meanings of *kilo-*, *centi-* and *milli-*? What other words begin with these prefixes?

Be practical – Do some baking and convert the measurements in the recipe.

How far? – Calculate some distances using unusual measurements. How tall is your child in mm? How far away is London in metres?



Key Instant Recall Facts

Year 5 – Spring 2

I can identify prime numbers up to 20.

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

A prime number is a number with no factors other than itself and one.

The following numbers are prime numbers:

2, 3, 5, 7, 11, 13, 17, 19

A composite number is divisible by a number other than 1 or itself.

The following numbers are composite numbers:

4, 6, 8, 9, 10, 12, 14, 15, 16, 18, 20

Key Vocabulary

prime number

composite number

factor

multiple

Children should be able to explain how they know that a number is composite.

E.g. 15 is composite because it is a multiple of 3 and 5.

Top Tips

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

It's really important that your child uses mathematical vocabulary accurately. Choose a number between 2 and 20. How many correct statements can your child make about this number using the vocabulary above?

Make a set of cards for the numbers from 2 to 20. How quickly can your child sort these into prime and composite numbers? How many even prime numbers can they find? How many odd composite numbers?



Key Instant Recall Facts

Year 5 – Summer 1

I can recall square numbers up to 12^2 and their square roots.

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

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

Key Vocabulary

What is 8 **squared**?

What is 7 **multiplied by itself**?

What is the **square root** of 144?

Is 81 a **square number**?

Children should also be able to recognise whether a number below 150 is a square number or not.

Top Tips

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

Cycling Squares – At <http://nrich.maths.org/1151> there is a challenge involving square numbers. Can you complete the challenge and then create your own examples?

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



Key Instant Recall Facts

Year 5 – Summer 2

I can find factor pairs of a number.

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

Children should now know all multiplication and division facts up to 12×12 . When given a number in one of these times tables, they should be able to state a factor pair which multiply to make this number. Below are some examples:

$$24 = 4 \times 6$$

$$24 = 8 \times 3$$

$$56 = 7 \times 8$$

$$54 = 9 \times 6$$

$$42 = 6 \times 7$$

$$25 = 5 \times 5$$

$$84 = 7 \times 12$$

$$15 = 5 \times 3$$

Key Vocabulary

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

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

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

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.

Play games - There is an activity at www.conkermaths.org to practise finding factor pairs

Think of the question – One player thinks of a times table question (e.g. 4×12) and states the answer. The other player has to guess the original question.

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



Key Instant Recall Facts

Year 6 – Autumn 1

I know the multiplication and division facts for all times tables up to 12×12 .

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

Please see separate sheet for all times table facts.

This is a chance for Year 6 children to consolidate their knowledge of multiplication and division facts and to increase their speed of recall. What level of Rock Star can they get to in the TTRS Studio?

Key Vocabulary

What is 12 **multiplied by** 6?

What is the **product** of 7 and 8?

What is 84 **divided by** 7?

They should be able to answer these questions in any order, including missing number questions e.g. $7 \times \bigcirc = 28$ or $\bigcirc \div 6 = 7$.

Children who have already mastered their times tables should apply this knowledge to answer questions including decimals e.g. $0.7 \times \bigcirc = 4.2$ or $\bigcirc \div 60 = 0.7$

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?

Use Times Table Rock Stars– Your child has a TTRS login (<https://play.ttrockstars.com/>). Regular use of this will speed up their recall. Children should be at level 420 on TTRS if they are fluent in all their times tables.

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



Key Instant Recall Facts

Year 6 – Autumn 2

I can identify common fractions of amounts.

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

Examples of facts are:

- ▶ $\frac{1}{4}$ of 12 =
- ▶ $\frac{1}{5}$ of 25 =
- ▶ $\frac{1}{3}$ of 30 =
- ▶ $\frac{1}{6}$ of 30 =
- ▶ $\frac{1}{4}$ of 24 =
- ▶ $\frac{3}{4}$ of 80 =
- ▶ $\frac{1}{5}$ of 60 =

Key Vocabulary

Division

Numerator

Denominator

Children should be able to explain their method for finding these facts.

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?

Children should use their knowledge of multiplication tables to answer these type of questions efficiently.

Play games – There are fractions of amounts games on both <https://mathsframe.co.uk/> and <https://www.topmarks.co.uk/>.



Key Instant Recall Facts

Year 6 – Spring 1

I can convert between decimals, fractions and percentages.

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

$$\frac{1}{2} = 0.5$$

$$\frac{1}{4} = 0.25$$

$$\frac{3}{4} = 0.75$$

$$\frac{1}{10} = 0.1$$

$$\frac{1}{5} = 0.2$$

$$\frac{3}{5} = 0.6$$

$$\frac{9}{10} = 0.9$$

$$\frac{1}{100} = 0.01$$

$$\frac{7}{100} = 0.07$$

$$\frac{21}{100} = 0.21$$

$$\frac{75}{100} = 0.75$$

$$\frac{99}{100} = 0.99$$

Key Vocabulary

How many **tenths** is 0.8?

How many **hundredths** is 0.12?

Write 0.75 as a **fraction**?

Write $\frac{1}{4}$ as a **decimal**?

Children should be able to convert between decimals and fractions for $\frac{1}{2}$, $\frac{1}{4}$, $\frac{3}{4}$, $\frac{1}{5}$ and any number of tenths and hundredths.

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: start with tenths before moving on to hundredths. If you would like more ideas, please speak to your child's teacher.

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



Key Instant Recall Facts

Year 6 – Spring 2

I can identify prime numbers up 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**.

A prime number is a number with no factors other than itself and one.

The following numbers are prime numbers:

2, 3, 5, 7, 11, 13, 17, 19, 23,
29, 31, 37, 41, 43, 47

A composite number is divisible by a number other than 1 or itself.

The following numbers are composite numbers:

4, 6, 8, 9, 10, 12, 14, 15, 16, 18, 20,
22, 24, 25, 26, 27, 28, 30, 32, 34, 35, 36,
38, 39, 40, 42, 44, 45, 46, 48, 49, 50

Key Vocabulary

prime number

composite number

factor

multiple

Children should be able to explain how they know that a number is composite.

E.g. 39 is composite because it is a multiple of 3 and 13.

Top Tips

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

It's really important that your child uses mathematical vocabulary accurately. Choose a number between 2 and 50. How many correct statements can your child make about this number using the vocabulary above?

Make a set of cards for the numbers from 2 to 50. How quickly can your child sort these into prime and composite numbers? How many even prime numbers can they find? How many odd composite numbers?