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	5 + 9 = 14
3 + 8 = 11	6 + 8 = 14
4 + 7 = 11	7 + 7 = 14
5 + 6 = 11	6 + 9 = 15
3 + 9 = 12	7 + 8 = 15
4 + 8 = 12	7 + 9 = 16
5 + 7 = 12	8 + 8 = 16
6 + 6 = 12	8 + 9 = 17
4 + 9 = 13	9 + 9 = 18
5 + 8 = 13	
6 + 7 = 13	

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 **take away** 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 for Practising at Home

The secret to success is practising **little** and **often**. Use time wisely. Can you practise these key facts 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 – For example, try playing 'pairs' where the cards have to add up to a given number.

Practise online – http://www.arcademicskillbuilders.com/games/alien/alien.html is great for practising addition.
There are missing number questions at www.conkermaths.org/cmweb.nsf/products/conkerkirfs.html. See how many questions you can answer in just one minute.

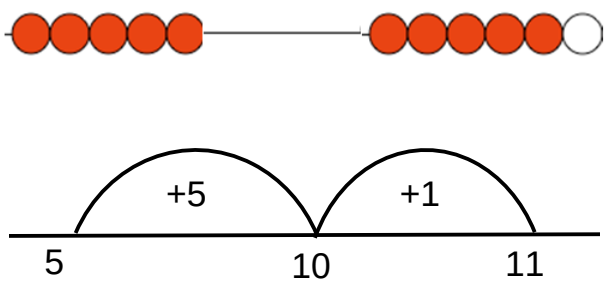
See overleaf for how this relates to learning in school

I know number bonds for all numbers to 20.

Learning in School

In school, we practise number bonds regularly by counting forwards and backwards from different starting numbers and through quick response to oral questions.

We encourage the children to represent the facts they know visually. Here are some examples of visual images that we use:

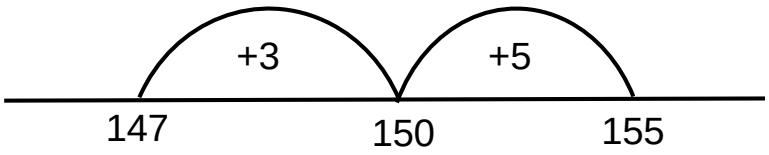


1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

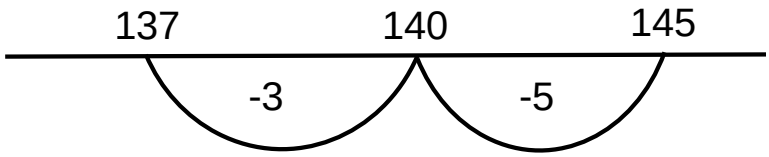
Your child has been learning too add and subtract 1-digit numbers **efficiently** by counting to the next multiple of 10, then counting the rest. Learning number bonds helps children to become more efficient with mental calculations like these.

We show this on a number line like this:

147 + 8 = 147 + 3 + 5
= 155



145 - 8 = 145 - 5 - 3
= 137



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 × 1 = 3	1 × 3 = 3	3 ÷ 3 = 1	3 ÷ 1 = 3
3 × 2 = 6	2 × 3 = 6	6 ÷ 3 = 2	6 ÷ 2 = 3
3 × 3 = 9	3 × 3 = 9	9 ÷ 3 = 3	9 ÷ 3 = 3
3 × 4 = 12	4 × 3 = 12	12 ÷ 3 = 4	12 ÷ 4 = 3
3 × 5 = 15	5 × 3 = 15	15 ÷ 3 = 5	15 ÷ 5 = 3
3 × 6 = 18	6 × 3 = 18	18 ÷ 3 = 6	18 ÷ 6 = 3
3 × 7 = 21	7 × 3 = 21	21 ÷ 3 = 7	21 ÷ 7 = 3
3 × 8 = 24	8 × 3 = 24	24 ÷ 3 = 8	24 ÷ 8 = 3
3 × 9 = 27	9 × 3 = 27	27 ÷ 3 = 9	27 ÷ 9 = 3
3 × 10 = 30	10 × 3 = 30	30 ÷ 3 = 10	30 ÷ 10 = 3
3 × 11 = 33	11 × 3 = 33	33 ÷ 3 = 11	33 ÷ 11 = 3
3 × 12 = 36	12 × 3 = 36	36 ÷ 3 = 12	36 ÷ 12 = 3

Key Vocabulary

What is 3 **multiplied by** 8?

What is 8 **times** 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 × ◯ = 18 or ◯ ÷ 3 = 11.

Top Tips for Practising at Home

The secret to success is practising **little** and **often**. Use time wisely. Can you practise these key facts 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 – There are lots of good 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 × 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 × 12 = 36. The answer to the multiplication is 36, so 36 ÷ 3 = 12 and 36 ÷ 12 = 3

Practise online – Try www.conkermaths.org/cmweb.nsf/products/conkerkirfs.html. See how many questions you can answer in just one minute.
http://resources.woodlands-junior.kent.sch.uk/maths/timestable/interactive.htm has lots of links to tables games to play.

See overleaf for how this relates to learning in school

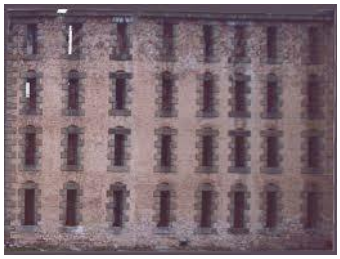
I know the multiplication and division facts for the 3 times table.

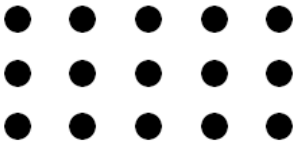
Learning in School

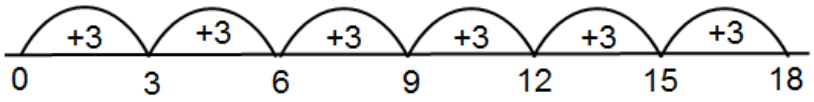
In school, we start by counting forwards and backwards in threes. We then say the tables in order and relate them to division facts. Finally, we practise quick recall in any order (including division).

Some of the approaches we use are: saying them, singing them, drawing them, looking for patterns, making up rhymes and quick response to oral questions.

We encourage the children to represent the facts they know visually. Here are some examples of visual images that we use:







We also encourage them to make links with the facts that they already know. For example, they know that 3 x 5 = 15 from learning the five times table. They know that 10 x 3 = 30, so can they use this to work out 9 x 3 or 11 x 3?

Your child will be learning to solve problems involving multiplication and division such as:

How many wheels are there on 6 tricycles?

A class of 27 children are put into teams of three. How many teams are there?

John's plant was 7cm tall. One week later, it has grown three times as tall. How tall is it now?

Knowing the tables facts by heart makes solving problems much easier!

Key Instant Recall Facts

Year 3 – Spring 1

I can recall facts about durations of time.

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

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?

Top Tips for Practising at Home

The secret to success is practising **little** and **often**. Use time wisely. Can you practise these key facts 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?

Practise online – Practise reading a calendar at http://mathsframe.co.uk/en/resources/resource/261.
Work out train times at www.counton.org/magnet/minus3/trains/ret2.html.

See overleaf for how this relates to learning in school

I can recall facts about durations of time.

Learning in School

In school, we are working on telling the time. The children also solve problems involving durations of time such as:

How much does it cost to hire a rowing boat for three hours?

Boat Hire	
Motor boats £1.50 for 15 minutes	Rowing boats £2.50 for 1 hour

Who finished the race first?

NAME	TIME TAKEN
Kevin	1 minute 23 seconds
Will	120 seconds
Georgina	57 seconds
Emily	1 minute 15 seconds
Oliver	52 seconds

If the train takes 35 minutes to reach the station and I need to be there by ten past 5, what time do I need to catch the train?

Next Wednesday is my birthday party. How many days do I have to wait?

How many days are there in this half term?

How many days is it until your next school holiday?

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 × 1 = 4	1 × 4 = 4	4 ÷ 4 = 1	4 ÷ 1 = 4
4 × 2 = 8	2 × 4 = 8	8 ÷ 4 = 2	8 ÷ 2 = 4
4 × 3 = 12	3 × 4 = 12	12 ÷ 4 = 3	12 ÷ 3 = 4
4 × 4 = 16	4 × 4 = 16	16 ÷ 4 = 4	16 ÷ 4 = 4
4 × 5 = 20	5 × 4 = 20	20 ÷ 4 = 5	20 ÷ 5 = 4
4 × 6 = 24	6 × 4 = 24	24 ÷ 4 = 6	24 ÷ 6 = 4
4 × 7 = 28	7 × 4 = 28	28 ÷ 4 = 7	28 ÷ 7 = 4
4 × 8 = 32	8 × 4 = 32	32 ÷ 4 = 8	32 ÷ 8 = 4
4 × 9 = 36	9 × 4 = 36	36 ÷ 4 = 9	36 ÷ 9 = 4
4 × 10 = 40	10 × 4 = 40	40 ÷ 4 = 10	40 ÷ 10 = 4
4 × 11 = 44	11 × 4 = 44	44 ÷ 4 = 11	44 ÷ 11 = 4
4 × 12 = 48	12 × 4 = 48	48 ÷ 4 = 12	48 ÷ 12 = 4

Key Vocabulary

What is 4 **multiplied by** 6?

What is 8 **times** 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 × ◯ = 20 or ◯ ÷ 4 = 7.

Top Tips for Practising at Home

The secret to success is practising **little** and **often**. Use time wisely. Can you practise these key facts 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 – There are lots of good songs and chants online. If your child creates their own song, this can make the times tables even more memorable.

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 × 4 = 24.

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

Practise online – Try www.conkermaths.org/cmweb.nsf/products/conkerkirfs.html. See how many questions you can answer in just one minute.
http://resources.woodlands-junior.kent.sch.uk/maths/timestable/interactive.htm has lots of links to tables games to play.

See overleaf for how this relates to learning in school

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

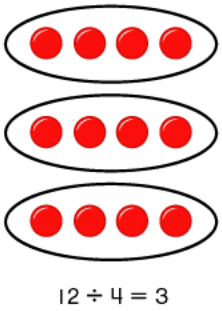
Learning in School

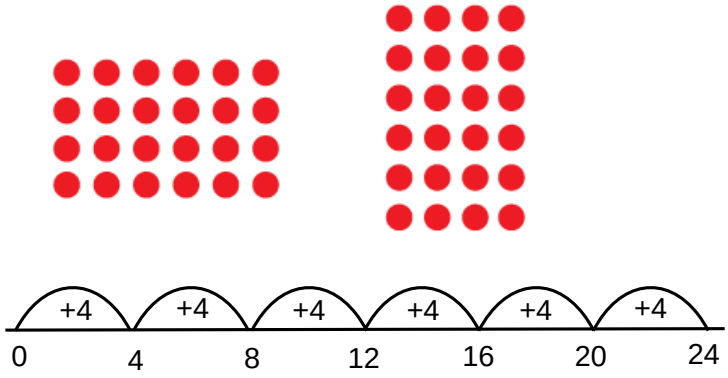
In school, we start by looking back at the 2 times table and how we can double this to get the 4 times table facts.

We practise counting forwards and backwards in fours. We then say the tables in order and relate them to division facts. Finally, we practise quick recall in any order (including division).

Some of the approaches we use are: saying them, singing them, drawing them, looking for patterns, making up rhymes, timed challenges and quick response to oral questions.

We encourage the children to represent the facts they know visually. Here are some examples of visual images that we use:





We also encourage them to make links with the facts that they already know. For example, they know that 3 x 5 = 15 from learning the five times table. They know that 10 x 3 = 30, so can they use this to work out 9 x 3 or 11 x 3?

Your child will be learning to solve problems involving multiplication and division such as:

How many legs on 8 horses?

There are 48 chocolates in a box. Tim shares them between himself and 3 other members of his family. How many chocolates will each person get?

The teacher needs 28 paper cups. She has to buy them in packs of 4. How many packs does she have to buy?

Knowing the tables facts by heart makes solving problems much easier!

Key Instant Recall Facts

Year 3 – Summer 1

I can tell the time.

By the end of this half term, children should be able to tell the time **instantly**. In order to become fluent, they need lots of practise.

Children need to be able to tell the time using a clock with hands and a digital clock. 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

a.m.

p.m.

Top Tips for Practising at Home

The secret to success is practising **little** and **often**. If there is a clock in the room, then challenge your child to tell the time, for example when they enter the room. Even better, if they have a watch encourage them to wear it and keep practising! If you would like more ideas, please speak to your child's teacher.

Give a reason – The best way to learn to tell the time is to have a *real reason* for doing so. For example, if your child wants to do an activity, tell them what time it starts and they need to make sure they are ready at that 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. 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."

Practise online – Try www.teachingtime.co.uk or www.bbc.co.uk/schools/dynamo/den/clock/index.htm for some games.

See overleaf for how this relates to learning in school

I can tell the time.

Learning in School

In school, we are practising telling the time. We show analogue clocks alongside digital times so the children see how they relate to each other. We find that rather than looking at lots of clocks in one session, it is better to ask the children the time throughout the day. For children who attend clubs or music lessons, we encourage them to look at the clock and tell us when it is time for them to go.

This term, we are concentrating on telling the time to the nearest minute. The children will need to draw on what they know about how many minutes in an hour and reading times 'past' and 'to' the hour.

In Year 4, the children will take this further by converting analogue times to digital (12 hour and 24 hour) and vice versa. They will use these facts to solve problems involving calculating the duration of events.

The only way to get better at telling the time is to practise!

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

Key Vocabulary

What is 3 **multiplied by** 8?

What is 8 **times** 3?

What is 24 **divided by** 3?

They should be able to answer these questions in any order, including missing number questions e.g. 8 × ◯ = 72 or ◯ ÷ 8 = 6.

Top Tips for Practising at Home

The secret to success is practising **little** and **often**. Use time wisely. Can you practise these key facts 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 – There are lots of good songs and chants online. If your child creates their own song, this can make the times tables even more memorable. Try thinking of a rhyming word for each answer.

Buy one get three free – If your child knows one fact (e.g. 8 × 5 = 40), can they tell you the other three facts in the same fact family?

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

Five six seven eight – Fifty-six is seven times eight (56 = 7 × 8).

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

Practise online – Try this game: www.mad4maths.com/8_x_multiplication_table_math_game/

See overleaf for how this relates to learning in school

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

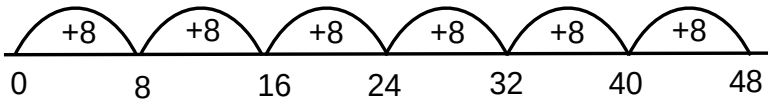
Learning in School

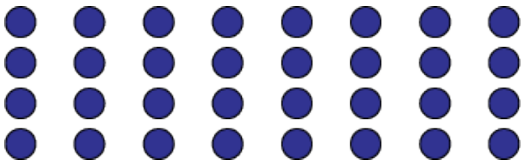
As the children are now fluent in their 4 times table, we start by relating the 8 times table facts by doubling the 4s.

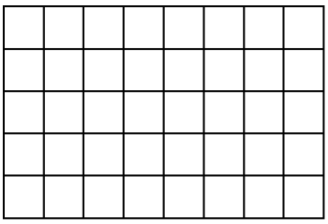
We practise counting forwards and backwards in eights. We then say the tables in order and relate them to division facts. Finally, we practise quick recall in any order (including division).

Some of the approaches we use are: saying them, singing them, drawing them, looking for patterns, making up rhymes, timed challenges and quick response to oral questions.

We encourage the children to represent the facts they know visually. Here are some examples of visual images that we use:







We also encourage them to make links with the facts that they already know. They have already learnt the 2, 3, 4, 5 and 10 times tables. This means they already know half of the facts in the 8 times table!

This term, we are starting to use the times tables facts to solve problems involving larger numbers such as:

23 x 8 =

x	20	3
8	160	24

160 + 24 = 184

Knowing the tables facts by heart makes these calculations much easier!