Key **I**nstant **R**ecall **F**acts – Yr 1 to 6
KIRFs

St Anne's Catholic Primary School
Christ at the heart of all we do

The KIRFs for each year group are aligned to the 2014 National Curriculum and the White Rose Maths Scheme of Work which is in place throughout St Anne's school.

Mental recall of number facts are vital to successful progress in number; these skills are fostered once understanding of new concepts has been achieved often through work with concrete apparatus and pictorial representations.

KIRFs are taught in fluency sessions in class – FREQUENCY????

You can support your child at home by helping them to develop mental recall and manipulation of number facts as outlined on the following pages. These KIRFs build upon prior knowledge, understanding and recall. If your child is finding work at the prescribed level challenging, it is a good idea to spend some time with preceding KIRFs. Please see your child's class teacher if you have any questions or comments.

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 **take away** 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 + ◯ = 100 or 100 − ◯ = 72.

Tips to support learning:
- Repetition of these facts is key – little and often is best.

- use NumBots activities to support recall of addition and subtraction facts.

- Look for, and use, patterns in number.
  6 + 4 = 10 so 60 + 40 = 100
  50 + 50 = 100 so 49 + 50 = 99
Discuss how different patterns and strategies can be used.

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 6 **times** 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 $\bigcirc \div 6 = 7$.

Tips to support learning:
- Repetition of these facts is key – little and often is best.

- www.timestables.co.uk
- Hit the button

- Use the three times tables – double it!

- Learn one fact and derive three more from it:
  I know: 6 x 3 = 18
      so   3 x 6 = 18
      and 18 ÷ 3 = 6 and 18 ÷ 6 = 3

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 6 **times** 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 $\bigcirc \div 9 = 11$.

Tips to support learning:

- Repetition of these facts is key – little and often is best.

- www.timestables.co.uk
- Hit the button

- What do you already know? There are lots of facts that have been learnt previously

- Learn one fact and derive three more from it:
  I know: $9 \times 3 = 27$
      so $3 \times 9 = 27$
    and $27 \div 3 = 9$ and $27 \div 9 = 3$

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 7 **times** 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 $\bigcirc \div 6 = 7$.

Tips to support learning:
- Repetition of these facts is key – little and often is best.

- www.timestables.co.uk
- Hit the button

- What do you already know? There are lots of facts that have been learnt previously. Which facts are easiest to remember?

- Learn one fact and derive three more from it: I know: $9 \times 7 = 63$
  so $7 \times 9 = 63$
  and $63 \div 7 = 9$ and $63 \div 9 = 7$

Key Instant Recall Facts – Year 4, Summer 1

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 ¼ as a **decimal**?

Tips to support learning:
- Repetition of these facts is key – little and often is best.

- Make cards with pairs of equivalent fractions and decimals. Use these to play snap or a memory game.

Key Instant Recall Facts – Year 4, Summer 2

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**.

$7 \times 10 = 70$	$30 \times 10 = 300$	$0.8 \times 10 = 8$
$10 \times 7 = 70$	$10 \times 30 = 300$	$10 \times 0.8 = 8$
$70 \div 7 = 10$	$300 \div 30 = 10$	$8 \div 0.8 = 10$
$70 \div 10 = 7$	$300 \div 10 = 30$	$8 \div 10 = 0.8$
$6 \times 100 = 600$	$40 \times 100 = 4000$	$0.2 \times 10 = 2$
$100 \times 6 = 600$	$100 \times 40 = 4000$	$10 \times 0.2 = 2$
$600 \div 6 = 100$	$4000 \div 40 = 100$	$2 \div 0.2 = 10$
$600 \div 100 = 6$	$4000 \div 100 = 40$	$2 \div 10 = 0.2$

Key Vocabulary

What is 5 **multiplied by** 10?

What is 10 **times** 0.9?

What is 700 **divided by** 70?

hundreds, tens, units

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 $\bigcirc \div 10 = 60$.

Tips to support learning:
- Repetition of these facts is key – little and often is best. Maybe you could focus on a fact family a day / week.

Year 4 Additional Challenge!

I can convert analogue times to the 24 hour clock.

Children need to know that there are 24 hours in the digital time scale. Converting 1am and 1pm to 01.00 and 13.00 respectively.

What would 6 o'clock in the morning and evening look like on the digital clock?

What time on the analogue clock is 18.45?

I can read and understand Roman Numerals to 100.

1	I	6	VI	20	XX	70	LXX
2	II	7	VII	30	XXX	80	LXXX
3	III	8	VIII	40	XL	90	XC
4	IV	9	IX	50	L	100	C
5	V	10	X	60	LX		