Key Instant Recall Facts (KIRFs)

To develop your child's fluency and mental maths skills, we are introducing KIRFs throughout school. KIRFS are a way of helping your child to learn by heart, key facts and information which they need to have instant recall of.

KIRFs are designed to support the development of mental maths skills that underpin much of the maths work in our school. They are particularly useful when calculating, adding, subtracting, multiplying or dividing. They contain number facts such as number bonds and times tables that need constant practise and rehearsal, so children can recall them quickly and accurately.

Instant recall of facts helps enormously with mental agility in maths lessons. When children move onto written calculations, knowing these key facts is very beneficial. For your child to become more efficient in recalling them easily, they need to be practised frequently and for short periods of time.

Each half term, children will focus on a Key Instant Recall Fact (KIRF) to practise and learn at home for the half term. They will also be available on our school website under the maths section and each child will receive a copy to keep at home. The KIRFs include practical ideas to assist your child in grasping the key facts and contain helpful suggestions of ways in which you could make this learning interesting and relevant. They are not designed to be a time-consuming task and can be practised anywhere – in the car, walking to school, etc. Regular practice - little and often – helps children to retain these facts and keep their skills sharp. Throughout the half term, the KIRFs will also be practised in school and your child's teacher will assess whether they have been retained.

Over their time at primary school, we believe that - if the KIRFs are developed fully - children will be more confident with number work, understand its relevance, and be able to access the curriculum much more easily. They will be able to apply what they have learnt to a wide range of problems that confront us regularly.

Key Instant Recall Facts

Year 4 – Autumn 1

Know number bonds to 100.

Count in 25s and 1000s.

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

Here are some examples

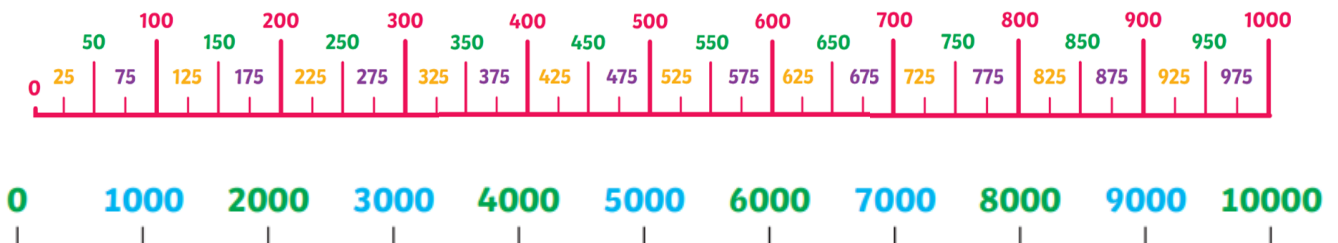|	
60 + 40 = 100	37 + 63 = 100
40 + 60 = 100	63 + 37 = 100
100 – 40 = 60	100 – 37 = 63
100 – 60 = 40	100 – 63 = 37
75 + 25 = 100	48 + 52 = 100
25 + 75 = 100	52 + 48 = 100
100 – 25 = 75	100 – 52 = 48
100 – 75 = 25	100 – 48 = 52

Number bonds to 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

Key Vocabulary

- add
- take away
- less than
- how many more
- difference

Try counting on in 25s from 0 or any multiple of 25.

100   200   300   400   500   600   700   800   900   1000
50   150   250   350   450   550   650   750   850   950
0   25   75   125   175   225   275   325   375   425   475   525   575   625   675   725   775   825   875   925   975

0   1000   2000   3000   4000   5000   6000   7000   8000   9000   10000

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. 85 + 15 = 100), can they tell you the other three facts in the same fact family?

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

Roll a number – Use 2 dice to create a 2 digit number – which number do you add to this to make 100?

Key Instant Recall Facts

Year 4 – Autumn 2

Highfield Primary School

Count in 4s and 8s and know the multiplication and division facts for the 4 and 8 times tables. (Up to 12x4/8)

By the end of this half term, children should know the following times tables facts. The aim is for them to recall these instantly, with increased pace and accuracy.

FOUR	EIGHT
4 x 1 = 4	8 x 1 = 8
4 x 2 = 8	8 x 2 = 16
4 x 3 = 12	8 x 3 = 24
4 x 4 = 16	8 x 4 = 32
4 x 5 = 20	8 x 5 = 40
4 x 6 = 24	8 x 6 = 48
4 x 7 = 28	8 x 7 = 56
4 x 8 = 32	8 x 8 = 64
4 x 9 = 36	8 x 9 = 72
4 x 10 = 40	8 x 10 = 80
4 x 11 = 44	8 x 11 = 88
4 x 12 = 48	8 x 12 = 96

Key Vocabulary

Multiply	- Times
Divide	- Share
Equal	- Product
Common multiples	

Use these useful websites to help you improve your times tables:

Hit the Button
TimesTables Rockstars

As your child improves their times table knowledge, they should be able to begin answering these questions in any order. Practise quick recall of the times tables facts in different orders and try using the inverse (division) to improve their knowledge. Challenge your child to solve missing number questions, for example 7× ◯ = 28 or ◯ ÷ 8 = 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 start with the 4 times tables and ensure they know all of them before moving onto the 8 times table. Can they spot common multiples?

Speed Challenge – Take two die, roll them together to make a number, ask your child to multiply the number they have made by 4 or 8. Practise regularly and see if they can beat their high score.

Key Instant Recall Facts

Year 4 – Spring 1

Highfield Primary School

Count in 3s and 6s and know the multiplication and division facts for the 3 and 6 times tables. (Up to 12x3 and 12x6)

By the end of this half term, children should know the following times tables facts. The aim is for them to recall these instantly, with increased pace and accuracy.

x3

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

x6

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

Key Vocabulary

Multiply   - Times
Divide   - Share
Equal   - Product
Common multiples

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As your child improves their times table knowledge, they should be able to begin answering these questions in any order. Practise quick recall of the times tables facts in different orders and try using the inverse (division) to improve their knowledge. Challenge your child to solve missing number questions, for example $6 × \bigcirc = 24$ or $\bigcirc ÷ 3 = 7$.

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 start with the 3 times tables and ensure they know all of them before moving onto the 6 times table. Can they spot common multiples?

Speed Challenge – Take two die, roll them together to make a number, ask your child to multiply the number they have made by 3 or 6. Practise regularly and see if they can beat their high score.

Highfield Primary School

Count in 9s and 11 and know the multiplication and division facts for the 9 and 11 times tables (Up to 12 x 9 and 12 x 11)

By the end of this half term, children should know the following times tables facts. The aim is for them to recall these instantly, with increased pace and accuracy.

$1 \times 9 = 9$
$2 \times 9 = 18$
$3 \times 9 = 27$
$4 \times 9 = 36$
$5 \times 9 = 45$
$6 \times 9 = 54$
$7 \times 9 = 63$
$8 \times 9 = 72$
$9 \times 9 = 81$
$10 \times 9 = 90$
$11 \times 9 = 99$
$12 \times 9 = 108$

$1 \times 11 = 11$
$2 \times 11 = 22$
$3 \times 11 = 33$
$4 \times 11 = 44$
$5 \times 11 = 55$
$6 \times 11 = 66$
$7 \times 11 = 77$
$8 \times 11 = 88$
$9 \times 11 = 99$
$10 \times 11 = 110$
$11 \times 11 = 121$
$12 \times 11 = 132$

Key Vocabulary
- Multiply   - Times
- Divide   - Share
- Equal   - Product
-Common Multiples

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Hit the Button
TimesTables Rockstars

As your child improves their times table knowledge, they should be able to begin answering these questions in any order. Practise quick recall of the times tables facts in different orders and try using the inverse (division) to improve their knowledge.
Challenge your child to solve missing number questions, for example $9 \times \bigcirc = 27$ or $\bigcirc \div 4 = 11$.

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? You don't need to practise them all at once: perhaps you could start with the 3 times tables and ensure they know all of them before moving onto the 6 times table. Can they spot common multiples?

Speed Challenge – Take two die, roll them together to make a number, ask your child to multiply the number they have made by 3 or 6. Practise regularly and see if they can beat their high score.

Key Instant Recall Facts

Year 4 – Summer 1

Count in 7s and 12 and know the multiplication and division facts for the 7 and 12 times tables (Up to 12 x 7 and 12 x 12)

7 times table

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

Timestables.co.uk

$1 \times 12 = 12$
$2 \times 12 = 24$
$3 \times 12 = 36$
$4 \times 12 = 48$
$5 \times 12 = 60$
$6 \times 12 = 72$
$7 \times 12 = 84$
$8 \times 12 = 96$
$9 \times 12 = 108$
$10 \times 12 = 120$
$11 \times 12 = 132$
$12 \times 12 = 144$

Key Vocabulary
- Multiply   - Times
- Divide   - Share
- Equal   - Product
-Common Multiples

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Hit the Button

TimesTables Rockstars

As your child improves their times table knowledge, they should be able to begin answering these questions in any order. Practise quick recall of the times tables facts in different orders and try using the inverse (division) to improve their knowledge.

Challenge your child to solve missing number questions, for example $9 \times \bigcirc = 63$ or $\bigcirc \div 4 = 12$

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? You don't need to practise them all at once: perhaps you could start with the 7 times tables and ensure they know all of them before moving onto the 12 times table. Can they spot common multiples?

Speed Challenge – Take two die, roll them together to make a number, ask your child to multiply the number they have made by 7 or 12. Practise regularly and see if they can beat their high score.

Recognise decimal equivalents of the fractions ½, ¼, ¾, tenths and hundredths.
Multiply and divide 1 and 2 digit numbers by 10 and 100.

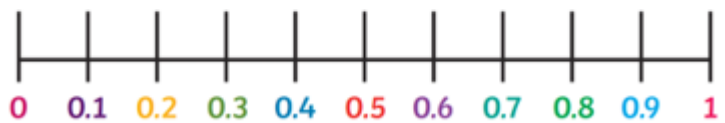## Halves, Quarters and Three Quarters as Decimals

Year 4 - Number – fractions (including decimals)

= ½ = 0.5

= ¼ = 0.25

= ¾ = 0.75

$$\frac{0}{10} \quad \frac{1}{10} \quad \frac{2}{10} \quad \frac{3}{10} \quad \frac{4}{10} \quad \frac{5}{10} \quad \frac{6}{10} \quad \frac{7}{10} \quad \frac{8}{10} \quad \frac{9}{10} \quad \frac{10}{10}$$

| 0 | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 0.9 | 1 |

Decimal	Words	Fraction
0.1	1 tenth	$\frac{1}{10}$
0.01	1 hundredth	$\frac{1}{100}$

How do we multiply or divide decimals by 10 or 100?

Multiplying by 10
$0.35 \times 10 = 3.5$

T	U	.	t	h
0	.	3	5	
3	.	5	0	

Multiplying by 100
$0.35 \times 100 = 35$

T	U	.	t	h
0	.	3	5	
3	5	.	0	0

To multiply by 10, move the digits one space to the left.
To multiply by 100, move the digits two spaces to the left.

Dividing by 10
$3.5 \div 10 = 0.35$

T	U	.	t	h
3	.	5		
0	.	3	5	

Dividing by 100
$3.5 \div 100 = 0.035$

U	.	t	h	th
3	.	5		
0	.	0	3	5

To divide by 10, move the digits one space to the right.
To divide by 100, move the digits two spaces to the right.

Remember...
1) The decimal point doesn't move.
2) You might need to fill in any blank places with a zero.

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Key Vocabulary
- Decimal
- Fractions
- Multiply
- Divide
- Tenths
- Hundredths

Top Tips...
Click this link below to revise how to multiply and divide by 10 and 100.
https://www.bbc.co.uk/bitesize/topics/z36tyrd/articles/z2fkwxs