



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 and if these facts can be recalled mentally, it frees up the working memory for them to unpick and solve more complex reasoning and problem solving questions. For your child to become more efficient in recalling facts easily, they need to be practised frequently and for short periods of time.

Each half term, children will focus on 1 or 2 Key Instant Recall Facts (KIRFs) to practise and learn at home for the half term. They will also be available on our school website under the maths section and will be sent to parents and carers alongside the curriculum newsletter each term. The KIRFs include links to online games, videos and resources that you may find useful when practising these KIRFs with your child at home. 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.

**Maths is a journey
not a destination**



Key Instant Recall Facts

Year 5 Autumn A

Consolidate multiplication and division facts for all times tables.

By the end of this half term, children should be confidently able to answer any times table fact for any table up to 12×12 . They should also be able to use this knowledge to apply to related division facts e.g. $36 \div \underline{\quad} = 4$

Possible Methods. - Songs and chants, there are many times table songs online. Such as [KS2 Maths: Multiples Mash-up March with Mr P - BBC Teach](#)

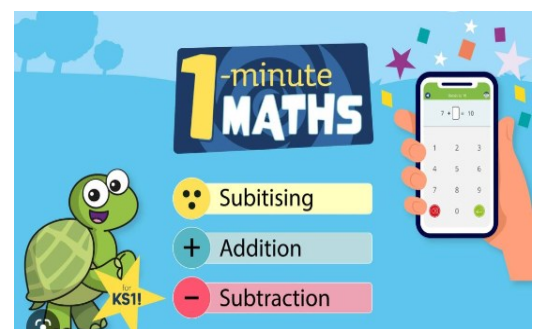
Spot patterns – Look at the pattern that 6 times table is double of 3 times table. 12 times table is the 10 times table with a double added on etc.

Test the Parent – Your child can make up their own division questions for you e.g. What is 42 divided by 6? They need to be able to multiply to create these questions

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 do not need to practise them all at once; perhaps you could have a fact of the day. Play 'ping pong'. You say a times table fact, the child says answer back to you with a speedy recall!

- **Online games**
- TT Rockstars—children have individual log ins.
- [Coconut Multiples - Reinforce Times Tables \(topmarks.co.uk\)](#)
- [Hit the Button - Quick fire maths practise for 6-11 year olds \(topmarks.co.uk\)](#) [KS1 Maths - England - BBC Bitesize](#)

White Rose Maths—One Minute Maths App





Key Instant Recall Facts

Year 5 Autumn B



Key Instant Recall Facts

Year 5 Spring A



Key Instant Recall Facts

Year 5 Spring B

Know all decimals that total 1 or 10 (1 decimal place).

By the end of this half term, children should be able to use their knowledge of number bonds to 10 and bonds to 100 and apply this to find pairs of decimals that total 1 or 10.

E.g. $0.3 + 0.7 = 1$ $4.6 + 5.4 = 10$ They should also be able to answer missing number questions e.g. $0.2 + ? = 1$ $? + 3.7 = 10$.

Method - Make sure links are made with bonds to 10 when finding pairs of decimals that total 1. Use correct vocabulary of tenths e.g. 0.4 is 4 tenths, rather than the language of zero point four. The children learn that ten tenths is a whole one. Ten tenths equals a whole.

When totalling 10 using pairs of decimals, links can be made with number bonds to 100 e.g. $62 + 38 = 100$ therefore $6.2 + 3.8 = 10$

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 do not need to practise them all at once; perhaps you could have a fact of the day. Play 'ping pong'. You say a decimal number, your child says the number back to you that is needed to total 1 or 10.

Key Vocabulary

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

What is 1 **take away** 0.6?

What is 1.3 **less than** 10?

How many more than 9.8 is 10?

What is the **difference** between 8.9 and 10?

Online Resources

[Decimal Number Bonds \(thenational.academy\)](https://thenational.academy)

[Hit the Button - Quick fire maths practise for 6-11 year olds \(topmarks.co.uk\)](https://topmarks.co.uk) (select the decimal option in number bonds)

[I Can Recall Decimal Number Bonds To 10. | Interactive Game | Lesson ID 147 | Studyzone.tv](#)



Key Instant Recall Facts

Year 5 Summer A

Know all decimal number bonds to 1 and 10.

By the end of this half term, children should be able to use their knowledge of basic number bonds to 10 from and apply this to know all decimal number bonds to 1 and 10. Including missing numbers. For example:

$$0.1 + 0.9 = 1 \quad 0.2 + 0.8 = 1 \quad 0.3 + 0.7 = 1 \quad 0.4 + 0.6 = 1 \quad 0.5 + 0.5 = 1$$

$$1.1 + 8.9 = 10 \quad 2.6 + 7.4 = 10 \quad 6.8 + 3.2 = 10 \quad 5.2 + 4.8 = 10$$

$$2.5 + \underline{\quad} = 10 \quad 0.7 + \underline{\quad} = 10 \quad \underline{\quad} + 4.3 = 10 \quad \underline{\quad} + 3.7 = 10$$

Method - Ensure children add on the tenths to bridge to the next whole number before adding the remaining ones. A common misconception is that children use bonds to 10 with the whole numbers plus the tenths e.g. thinking that $3.2 + 7.8 = 10$ because they see that $3 + 7 = 10$. In fact they should take $3.2 + 0.8$ to make 4 then recognise they need to add a further 6 to make 10. $3.2 + 6.8 = 10$. Watch this video for a good demonstration

[Lesson: Decimal Number Bonds | Teacher Hub | Oak National Academy \(thenational.academy\)](#)

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 do not need to practise them all at once; perhaps you could have a fact of the day. Play 'ping pong'. Adult says a number, child says number back that is needed to equal 1 or 10.

Play games

- Play 'Guess my number' giving clues e.g. I'm thinking of a number, when I add 0.3 to it my answer is 1. What was my number?
- Play bonds to 1 or 10 with decimal numbers bingo. Create a grid on paper, add decimal numbers to each box. Bingo caller calls out decimal number, if you have a number on your board that adds to the callers number to equal 1 or 10 then cross it out. First to complete their grid is the winner!
- **Online games** [Hit the Button - Quick fire maths practise for 6-11 year olds \(topmarks.co.uk\)](#) (select number bonds then decimals)



Key Instant Recall Facts

Year 5 Summer B

Recall metric conversions

By the end of this half term, children should be able to convert between metric units of mass, length and capacity. They should know how many mm are in a cm, how many cm in a metre, grams in a kilogram, ml in a litre etc. They should link this with their place value knowledge of multiplying and dividing by 10, 100 and 1000.

Concrete:

Thousands	Hundreds	Tens	Ones	Tenths	Hundredths
			● ● ●	● ●	● ● ●

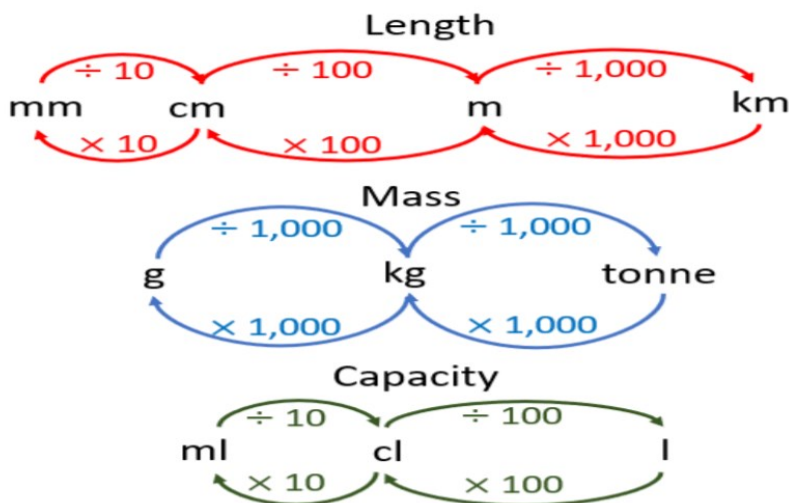
How many mm are in 3.24cm?

How many cm are in 3.24m?

Pictorial:

Thousands	Hundreds	Tens	Ones	Tenths	Hundredths
			3	2	4
		3	2	4	
	3	2	4		

Abstract method. -



[Converting metric units - Maths - Learning with BBC Bitesize - BBC Bitesize](#)

Things to try

- Measure the length, mass and volume of different items in your home. Show the measurements in different units of measures.
- Help out in the kitchen to follow a recipe. Can you convert the units of measure?