

Mathematics
Key Instant Recall Facts
KIRFs



To develop your child's fluency and mental maths skills, we are introducing KIRFs (Key Instant Recall Facts) throughout Mill Rythe Junior 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. Being able to recall these facts quickly allows your child to focus on problem solving and reasoning which is a main focus for the mathematics curriculum. 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. 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 – for example in the car and walking to school. 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 Mill Rythe Junior 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 and contexts that they will encounter as parts of their learning in maths.



Key Instant Recall Facts

Year 4– Spring 1

I know the 9 x table (x and ÷).

By the end of this half term, children should know the 9 x tables as well as the linked division facts. The aim is for them to recall these facts **instantly**.

They should be able to answer these questions in any order, including missing number questions e.g.

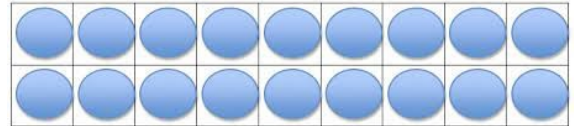
$$6 \times \square = 54 \text{ or } \square \div 9 = 6$$

Top Tips

Can they show you what a times table fact looks like using resources?

Can they represent it by drawing a diagram or an array?

You can use the TT Rock Stars Resources to look at different ways to show a fact. <https://trockstars.com/page/interactivetools>



Regular practise on TT Rock Stars– If you use the Jamming mode you can select the times tables to focus on and whether to include x and ÷.

Use the think it, link it board. This was shared during the Year 3 and 4 Multiplication morning. It can encourage them to think about how they can use facts they already are confident in (e.g. 2,5 and 10 x table) to help them to find ones they are less confident with. Please see your child's class teacher if you would like more information about how this can be used to support and develop children's understanding.

What patterns can you spot for the nine times table? (showing them on a hundred square can make these clearer). Are the answers odd or even? What happens to the tens? The ones?

How can you use your knowledge of the 10 x table? Encourage children to find x9 quickly by finding ten lots and then taking away one lot. ($3 \times 9 = 3 \times 10 - 3 = 27$)

Buy one get three free – If your child knows one fact (e.g. $2 \times 9 = 18$), 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. $6 \times 9 = 54$. The answer to the multiplication is 54, so $54 \div 9 = 6$ and $54 \div 6 = 9$

Key Vocabulary

What is 6 **multiplied** by 9?

What is 10 **times** 9?

What is 24 **divided** by 9?

What is the **product** of 3 and 9?

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