

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



Year 1 Autumn A

Know 1 more and 1 less of numbers up to 20.

Count to and across 100 forwards and backwards from any number

By the end of this half term, children should be able to mentally recall 1 more and 1 less than any number up to 20. The aim is for this to be a known fact without the need to count on or back.

Strategies—lots of looking at numbers in order, counting back and forth will help the numbers become more ingrained. **Use practical methods,** count food on a plate, if I add one more sausage, how many will you have? If I take one chip away, how many left? **Ensure children understand the vocabulary of more and less**.

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 number, your child says the number back to you that is one more or less.

By the end of this half term, children should also be able to count to and beyond 100 forwards and backwards from any number.

Keep this practical—count out loud at every opportunity. Play games whilst walking, what number can we count to before we arrive at school/shops/ grandparents house etc. It is really important that you do not always start counting from 1.

- Online games
- <u>Count Backwards from 100 by 1's | Exercise and Count | Jack Hartmann</u>
 <u>Countdown From 100 YouTube</u>

White Rose Maths—One Minute Maths App





Year 1 Autumn B



Year 1 Spring A



Year 1 Spring B

Add and Subtract Numbers up to total of 20.

By the end of this half term, children should be able to use a variety of mental methods and strategies in order to add and subtract numbers up to a total of 20.

Possible Methods. - Put the largest number in our head and count on or back.

Use known doubles and halves and near doubles and halves.

Use bonds to 10 and 20 where appropriate.

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 number, your child says the number back to you that is needed to add/subtract to make your chosen number.

Use practical resources

- Using items around the house to find different ways of making a given total e.g 5 blue teddies and nine red teddies. 5 add 9 equals 14.
- Making up stories with items around the home, e.g there are 12 cars in the car park and 8 more cars arrive, how many cars altogether? 12 add 8 equals 20.
- Make collections of 20 objects. Ask questions such as, "How many more conkers would I need to make 20?"
- Online games
- <u>ks1 addition and subtraction to 20 Topmarks Search</u>
- 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





Year 1 Spring B

Recognise odd and even numbers up to 20.

By the end of this half term, children should be able to say whether a number is odd or even.

Possible Methods. - Think about even numbers being in a pair. Odd will have an 'odd one out' when pairing up. Count in 2s to recognise odd numbers. Repetition of the pattern of numbers ending in 0, 2, 4. 6. 8 will always be even.

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 number of the day. Look at house numbers while walking to school are they odd or even?

Use practical resources

- Using items around the house pair them up to work out if the amount is odd or even. Use the language of odd and even around the home. E.g. how many odd socks do we have in the washing?
- Making up stories linked to home life, we have 5 people coming round for dinner, is that odd or even? Will everyone have a partner etc?.
- Online games
- <u>Coconut Odd or Even Topmarks</u>
- <u>Number Ninja Odd or Even ABCya!</u>
- <u>Catch A Star || Odd or Even Numbers mobile friendly (ictgames.com)</u>



Year 1, Summer A

Count forwards in steps of 2, 5 and 10.

By the end of this half term, children should be able to use a variety of mental methods and strategies to count forwards in steps of 2, 5 and 10.

Possible Methods: Use skip counting when counting in 2s. Look at a 100 square, can children spot any patterns, are there any similarities when they count forwards in steps of 2, 5 or 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 number and then your child says the number that is 2, 5 or 10 steps on from your number. Keep repeating and see how high can you go!

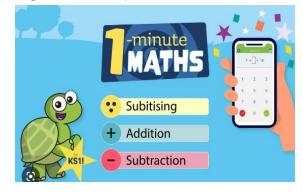
Use practical resources:

- Ask your child to put their socks into pairs and practice counting how many socks you have by counting up in 2s.
- Ask your child to count up in 5s or 10s how many fingers and toes they have, how many are in your family?
- Practice reciting counting up in steps of 2, 5 or 10 on your fingers.

Online games:

- <u>Hit the Button Quick fire maths practise for 6-11 year olds (topmarks.co.uk)</u>
- Whack A Mole || Counting in steps of 1, 2, 3....12 (ictgames.com)
- <u>Saucer Sorter (ictgames.com)</u>
- TT Rockstars children have individual log ins.

White Rose Maths – One Minute Maths App:





Year 1, Summer B

Count backwards in steps of 2, 5 and 10.

By the end of this half term, children should be able to use a variety of mental methods and strategies to count backwards in steps of 2, 5 and 10.

Possible Methods: Use skip counting when counting backwards in 2s. Look at a 100 square, can children spot any patterns, are there any similarities when they count backwards in steps of 2, 5 or 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 number and then your child says the number that is 2, 5 or 10 steps back from your number. Keep repeating and see how many you can get!

Use practical resources:

- Ask your child to put their socks into pairs, count up in 2's to find out how many pairs you have and remove a pair each time your child can count backwards in 2's to say how many pairs they have left each time.
- Ask your child to count up in 5s or 10s how many fingers and toes they have, how many are in your family? Now count backwards until they get back to 0 fingers and toes.
- Practice reciting counting backwards in steps of 2, 5 or 10 on your fingers.

Online games:

- <u>Hit the Button Quick fire maths practise for 6-11 year olds (topmarks.co.uk)</u>
- Whack A Mole || Counting in steps of 1, 2, 3....12 (ictgames.com)
- Paint the Squares Interactive Number Charts (topmarks.co.uk)
- TT Rockstars children have individual log ins.

White Rose Maths - One Minute Maths App:





Year 1, Summer B

Know the months of the year and the seasons in order.

By the end of this half term, children should be able to recite both the months of the year and the seasons in order.

Possible Methods: You could practice reciting these when completing daily activities, either verbally or in song form. Look at photographs of your child enjoying seasonal activities. Say a season, can your child splat the photograph taken during that season?

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 month, your child tells you the previous and following month.

Use practical resources:

• Look at a calendar or make your own monthly or seasonal calendar using pictures or photographs.

Online games:

- <u>months of the year and seasons song YouTube</u> There are lots of songs on YouTube to help your child learn these.
- Learn Months of the Year ABCya!