Maths Parent Forum- EYFS & Lower Phase

Maths Lead: Mrs Atkins (Assistant Headteacher)

Maths Lead support for Upper Phase : Mrs Prendiville (Year 5 Teacher)

Maths Lead support for EYFS & Lower Phase: Mrs Way (Foundation Stage Teacher)

Outline for today's forum

- Our school aims for teaching maths
- Our approach for teaching maths
- Maths in Foundation Stage
- Maths in Lower Phase
- Ideas for how to support your child and resources
- Opportunities for questions

Our aims for the teaching and learning of mathematics

We feel strongly that it is our children's right to understand the language of maths and we believe that confidence in maths leads to competence.

Maths is an integral part of our lives and is a tool that enables us to describe and make sense of the ever-changing world in which we live.

Children are taught that maths is not all about getting the right answer; in fact, they are encouraged to embrace challenge and to regard the making of mistakes as the first step to success; they are shown explicitly how errors provide learning opportunities.

We aim to foster in our children the following:

- a curiosity that leads them to pose questions;
- creativity and logic in their approach to solving problems;
- a willingness to take risks.

We believe that it is our responsibility to promote maths as a subject that is challenging, rewarding and fun.

How do we teach Maths?

White Rose

This a recommended scheme by the DfE and NCETM (National Centre of Excellence in the Teaching of Mathematics)

Features of White Rose

- number at the heart of the scheme; a large proportion of time is spent on developing competency in number
- ensures teachers support the ideal of depth before breadth (mastery approach)
- promotes plenty of opportunities to develop reasoning and problem-solving skills

White Rose Maths

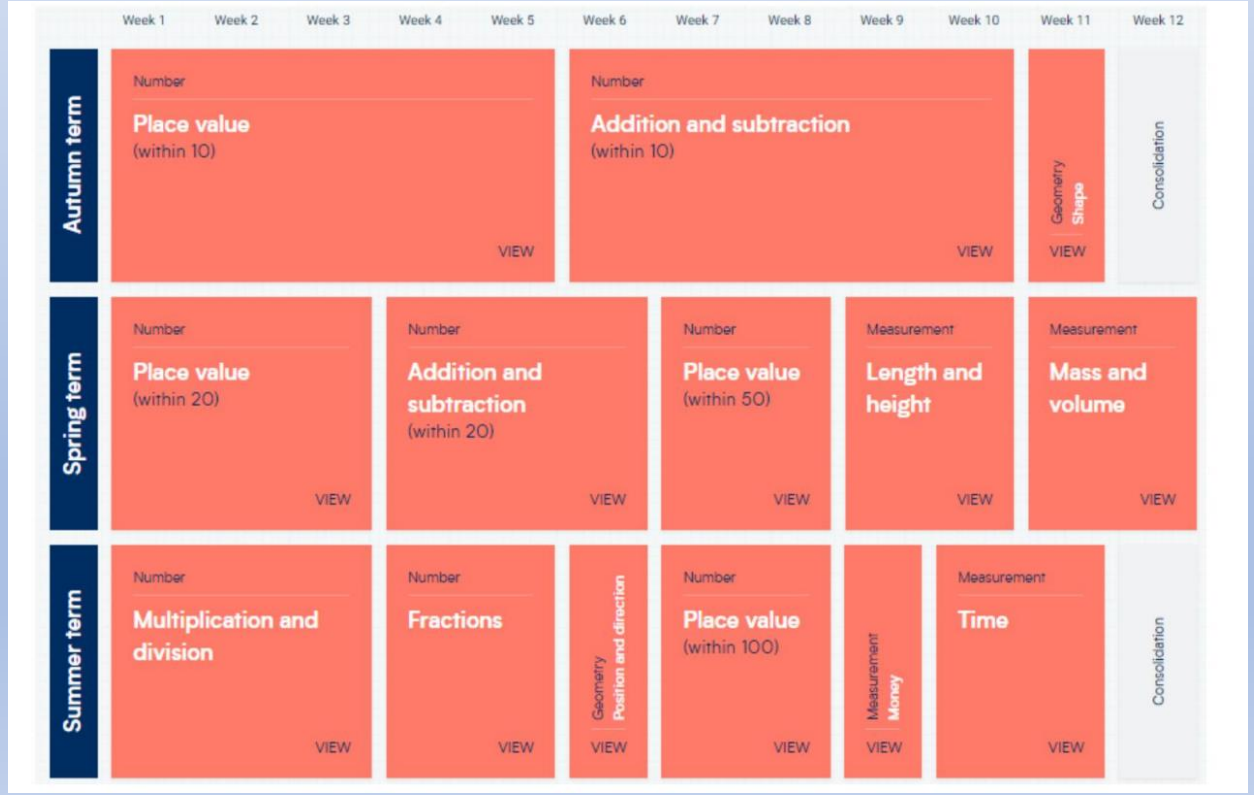
NCETM NATIONAL CENTRE FOR EXCELLENCE IN THE TEACHING OF MATHEMATICS AXIS

WINNERSH PRIMARY SCHOOL WHERE LEARNING IS AN ADVENTURE

How do we teach Maths?

- There are 'blocks' of learning for each year group throughout the year. These are available on our school website .

- These blocks are carefully adapted to suit the needs of individual classes.



How do we teach Maths?

We aim to combine an optimal mix of mastery and spiral approaches.

Features of a mastery curriculum:

•devoting more time to the introduction of key concepts
•as much as possible, teaching the whole class together (the same lesson content at the same time)
•CPA approach – Concrete, Pictorial and Abstract approach
•anticipating and planning for any misconceptions
•developing metacognitive skills in children
•planning questions carefully
•specific provision of scaffolding when necessary
•challenge provided for those children who have grasped the concept (they are given stretch activities to deepen their understanding of the concept being taught)

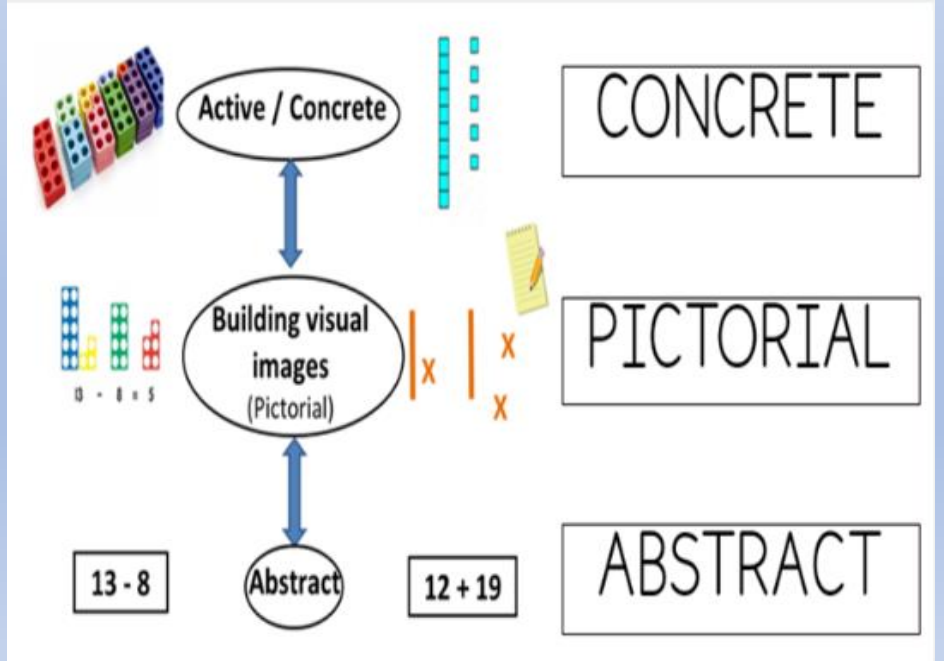
Features of a spiral curriculum:

•topics are revisited
•levels of difficulty increase
•new learning is related to previous learning

CPA Approach- Concrete, Pictorial, Abstract

At the heart of White Rose's mastery approach is the Concrete Pictorial Abstract (CPA) approach.

Research shows that when children are introduced to a new concept, working with concrete physical resources and pictorial representations leads to a better understanding of abstract concepts.



Maths in Foundation Stage

Early Learning Goals

Communication Language	Personal, Social and Emotional Development
• Listening, Attention and Understanding • Speaking	• Self-Regulation • Managing Self • Building Relationships
Physical Development	**Literacy**
• Gross Motor Skills • Fine Motor Skills	• Comprehension • Word Reading • Writing
Mathematics	**Understanding the World**
• Number • Numerical Patterns	• Past and Present • People, Culture and Communities • The Natural World
Expressive Arts and Design	
• Creating with Materials • Being Imaginative and Expressive	

Maths in Foundation Stage

Number

Early Learning Goal - Have a deep understanding of number to 10, including the composition of each number;
- Subitise (recognise quantities without counting) up to 5;
- Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts.

Numerical Patterns

Early Learning Goal - Verbally count beyond 20, recognising the pattern of the counting system;
- Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity;
- Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.

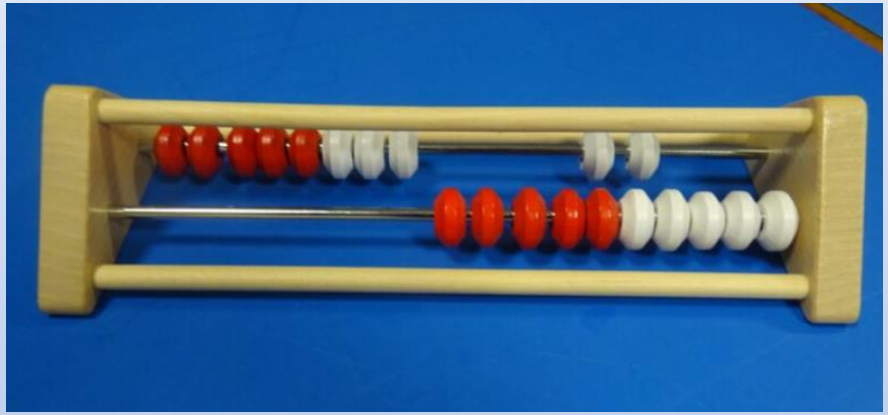
How do we teach Maths in Foundation Stage?

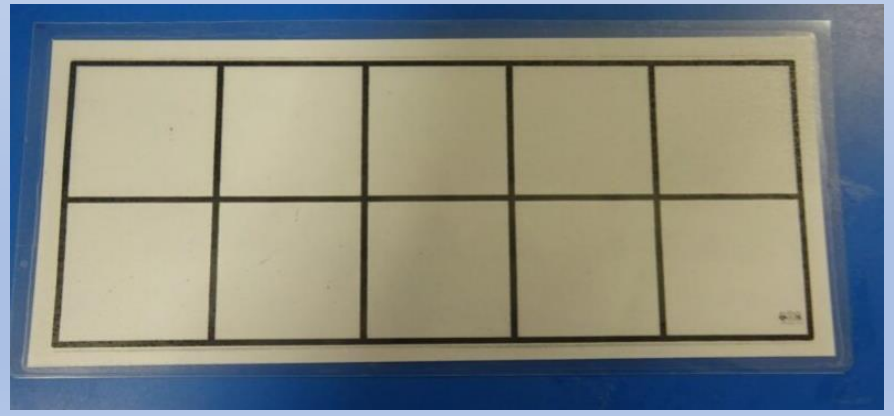
- Planning is to be based upon the White Rose Scheme.
- Focused maths teacher input takes places twice a week and then children work with the teacher in a small group to develop their skills, which is evidenced in their maths book.
- Lessons start with a maths starter before moving onto the focused input.
- Key questions are asked to developed mathematical vocabulary and check understanding.
- Correct use of mathematical language promoted when working with the children in small groups, and when interacting with them during Exploring Time.
- Mathematical activities are carefully planned for Exploring Time.
- The continuous provision is modelled and then available to allow all the children to access it.
- Mathematical vocabulary is to be displayed throughout the environment to support mathematical talk.
- Children are encouraged to use maths and mathematical vocabulary within other subjects, such as: geography and science.

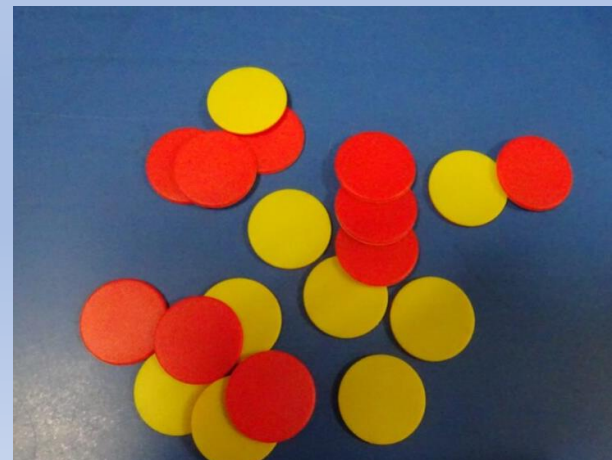
How do we teach Maths in Foundation Stage?

- Children need to develop a strong foundation in maths including skills such as: counting, comparing quantities, exploring patterns, spatial reasoning and problem solving.
- To help develop these skills, teachers provide frequent and varied opportunities for children to build and apply their understanding.
- Children use manipulatives and physical resources when completing their maths learning.
- Teachers support children to develop a positive attitude towards maths and encourage them to have a go and talk to adults and peers about what they notice.

What resources support early maths skills?







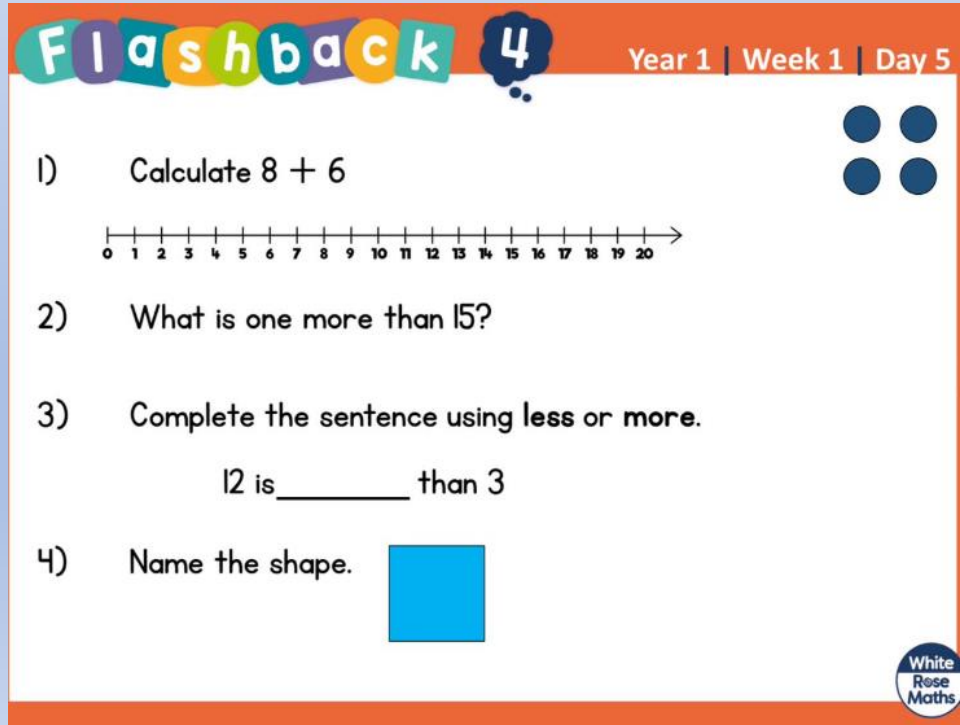
How can you support developing these skills at home if your child is in FS?

- Spot numbers when you are walking/driving around.
- Estimate how many lamp posts you will walk past.
- 1-1 matching eg 1 plate for mummy, 1 plate for Bob.
- Counting numbers in order.
- Numeral recognition and putting in order.
- 1-1 accurate counting of amounts. Put them in a line to count.
- Numberblocks and colour blocks on cbeebies are great at reinforcing the learning that has taken place at school.
- Use comparison vocab eg length, weight, height.
- Positional language eg put the teddy on the table.
- Use words 'more', 'less/fewer'.
- Real life problems eg I have 6 sweets, Bob gives me 2 more.
- Looking at numbers on scales and packaging when cooking.

Maths in Lower Phase

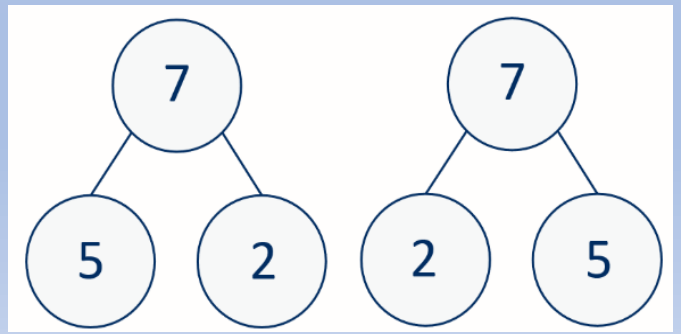
- Maths lessons happen daily and are 1 hour long
- At the start of Year 1, they follow a similar approach to FS, doing a short teacher input and the working with small groups of children
- At the start of each maths lesson, we focus on developing fluency, which Mrs Prendiville will talk about in a minute
- Every lesson starts with a FlashBack 4. This is 4 retrieval style questions

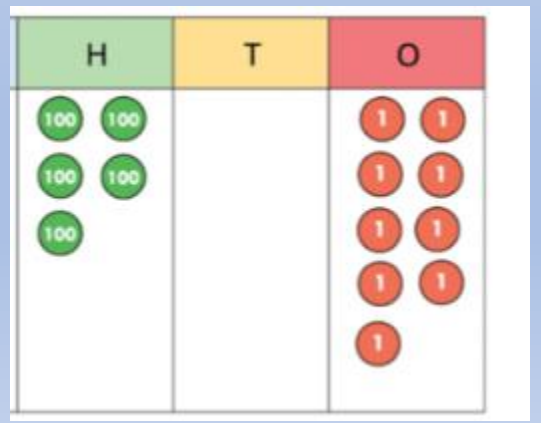
<u>Mathematics programmes of study: key stages 1 and 2</u>

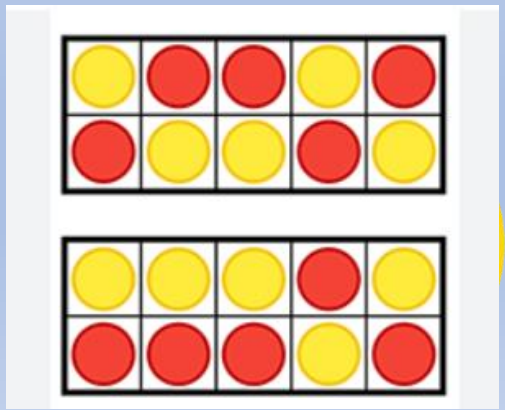


Maths in Lower Phase

- There will be a clear learning focus for each lesson, explained by the teacher
- Lots of teacher modelling of 'how to do the maths'
- Lots of oral and written rehearsal for the children to develop rich mathematical vocabulary and practise the key skills and methods taught
- Independent work and adults doing targeted support
- Instant live marking and feedback from adults in the classroom
- Misconceptions addressed
- Encouraging the use of manipulatives







How can you support your child at home?

In Year 1, your child will start to build confidence working with numbers, through developing their counting and calculation skills. They will also gain an understanding of halves and quarters, start to measure and tell the time, and learn about some 2D and 3D shapes.
Your child will be taught to count forwards and backwards to 100, add and subtract numbers to 20, and be introduced to the idea of multiplying and dividing.

Count objects around the house

When counting, encourage your child to point to each object, putting them in a row. For more than 10 objects, group into tens to see that, for example, 32 is 3 tens and 2 ones. Practise counting in twos, fives or tens using, for example, pairs of socks, fingers on hands or 10p coins.

Play dice games

Gather some objects – blocks, buttons, even biscuits! Roll two dice and find the total, using the objects to add practically. Or start with, say, 12 objects, roll a dice and subtract the number shown on the dice to find how many objects are left. The player with more objects wins.

Use toys

Explore fractions using some of your child's favourite toys. Ask your child to halve their toys by splitting them into two equal groups. So, for ten cars, make two groups of five. Similarly, practise finding one quarter by splitting toys into four equal groups.

How can you support your child at home?

In Year 2, your child will continue to develop their counting and calculation skills, learning different ways to multiply and divide. They will also extend their understanding of fractions. They will measure length, weight, volume, temperature, time and money, discover more about 2D and 3D shapes, and begin to learn about statistics. They'll count in steps of 2, 3, 5 and 10 and learn number bonds to 20. They'll partition numbers into 10s and 1s to add and subtract one-digit and two-digit numbers. They will be taught the 2, 5 and 10 times tables.

Partition numbers

Partitioning means to break numbers into parts. Use objects, such as straws grouped in tens, to show numbers split into tens and ones. How many ways can your child find to partition a number?

For example, 54 could be 50 + 4, 40 + 14, 30 + 24, 20 + 34, or 10 + 44.

Tell stories

Make up addition and subtraction stories together. For example: *Two badgers, three hedgehogs and a toad have a picnic.*

How many animals are there altogether? Four rabbits join in. How many are there now? Two animals go home. How many are left?

Play shops

To help your child get used to the value of different coins and notes, use real money to play shops.

Price up some toys and take turns to be the customer who pays and the shopkeeper who works out the change.

How can you support your child at home?

In Year 3, your child will continue to develop their understanding of numbers and start to calculate using formal writte methods. They will learn a lot more about fractions, including tenths. They'll find perimeters of 2D shapes, use the 24- hour clock, recognise angles, and start to use bar charts. They'll count in steps of 4, 8, 50 and 100 and order numbers to 1000. They'll partition numbers into 100s, 10s and 1s, add and subtract three-digit numbers, and multiply two-digit by one-digit numbers. They will be taught the 3, 4, and 8 times tables & begin to add and subtract fractions.

Make arrays

Arrays are shapes or objects arranged in a rectangle, such as a muffin tray or an egg box.

Give your child some counters, buttons or beads, say 12. How many different arrays can they make? What calculations does each array show?

Play with food

Use foods with a regular shape (cake, pizza, cucumber slices) and ask questions like: *Let's cut this into 8 pieces, what fraction is each piece?* Find fractions of amounts using foods such as fishfingers or biscuits: *There are 12 in the packet and 4 of us. What fraction can we each have? How many each is that?*

Hunt for treasure

Hide some 'treasure' in a room and blindfold your child. Give them directions to find the treasure, such as: *Turn two right angles clockwise, now take three steps forward.* Use whole, half, quarter and three-quarter turns clockwise and anti-clockwise.

Developing Fluency

Developing Fluency

Although maths is so much more than being good with numbers, it is imperative that children acquire sound number sense if they are to experience success in developing reasoning and problem-solving skills.

Our adoption of a new number fact and times tables scheme is intended to equip children with a rapid recall of multiplication facts while gaining a solid understanding of the commutative property of multiplication and the relationship between multiplication and division.

In EYFS, children practise number recognition and counting daily.

From Year 1 and throughout the rest of the school, children practise number facts and then move on to times table facts, practising these daily.

Children spend roughly 3-4 weeks on each times table and complete one test per day in their school booklet.

Maths number facts and times tables practise

My Number Facts Practice Booklet

New facts in this booklet:

2 + 2 = 4
3 + 2 = 5
4 + 2 = 6
5 + 2 = 7
6 + 2 = 8
7 + 2 = 9
8 + 2 = 10
9 + 2 = 11

1	
1 + 2 = _____	2 + 3 = _____
3 + 2 = _____	2 + 1 = _____
4 + 2 = _____	3 + 2 = _____
3 - 2 = _____	2 + 2 = _____
2 + 1 = _____	1 + 2 = _____

For their Maths starter, children in Year 1 and Year 2 will focus on addition and subtraction facts which include number bonds, doubles and near doubles.

This is the second booklet of the series and will be used by children over a period of 3 – 4 weeks. The aim is for them to gain an appreciation of the commutative property of addition and its relationship with subtraction.

The number facts are displayed for all children to access during their daily exercise.

For their Maths Starter activity, children in Years 3 – 5, will focus on a times table over a period of 3-4 weeks, learning one fact each lesson and completing one test in their times tables booklet.

This will enable them to gain a solid understanding of the commutative property of multiplication and the relationship between multiplication and division.

Multiplication Tables Check (MTC) - a statutory requirement for all Year 4 pupils

It is an on-screen check consisting of 25 times table questions. Children have 6 seconds to answer each question. On average, the check should take no longer than 5 minutes to complete. It takes place in June each year.

The purpose of the check is to determine whether your child can fluently recall their times tables up to 12, which is essential for future success in mathematics. It also helps the school to identify if your child may need additional support.

Year 4 children only face multiplication statements in the check. This means that related division facts, whilst a key part of children's mathematical learning, are not to be tested as part of the check. Some maths experts are already saying that this removes much of the potential benefits of the check.

At Winnersh Primary, we use a times tables scheme that ensures our children understand the relationship between multiplication and division whilst developing rapid recall of times tables facts.

Further support for Parents

- WR Calculation Document
- Our School Website
- White Rose Website
- Google Classroom
- Ask Class Teachers

Resources you might find useful at home

- Tens frames (easily printed at home- Google)
- Double-sided counters (red and yellow) Learning Resources Two-Color Counters Smart Pack, Counting resources for kids, Classroom and Homelearning, Counting Toys, Playing Counters, EYFS Resources. : Amazon.co.uk: Toys & Games
- Place value countersInspirational Classrooms 3108403 Place Value Counters H T U Educational Toy (Pack of 300), Red, Yellow, Black, Green : Amazon.co.uk: Toys & Games
- Number lines (easily printed at home)
- Part-whole models (easily printed at home)

Thank you for your time.

Are there any questions?