



# Stukeley Meadows Primary School

Getting our best even better, every single day  
Be Kind – Work Hard – Aim High



## Maths at Stukeley Meadows Primary School

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### INTENT

At Stukeley Meadows Primary School we believe in learning to remember things worth remembering. We strive to engage our children in Mathematics that can be used in their everyday life and propel them forward into a promising future. Children at Stukeley are supported with Maths through quality first teaching, a wide variety of resources and the encouragement and support needed for them to be brave, active and make progress with their learning.

We encourage every child to use and see Maths in real life contexts and make links between what has been taught and what can be applied in meaningful contexts to everyday life. Teachers find opportunities to apply Mathematics skills across the curriculum, for example, using graphs in Science, counting or measuring distance in PE or interpreting historical and geographical data.

At Stukeley, we are passionate about using regular retrieval practice to imbed and master our knowledge across the curriculum. Therefore, children at Stukeley engage in regular retrieval of previously taught skills to ensure that common misconceptions and gaps in learning are addressed to aid the progression of Maths Mastery. A carefully planned learning journey of small steps is taken to ensure that all children can master concepts before moving on. There is coherent progression seen in planning within each unit to ensure learning is sequential and builds on previous knowledge, skills and vocabulary

## Our Curriculum

### White Rose Maths

At Stukeley we follow a scheme of Maths learning produced by *White Rose Education*. This is taught in every year group from EYFS to Year 6. Learning with White Rose Maths gives all children the opportunity to learn alongside the national curriculum guidelines in a fun, inclusive and age-appropriate way. White Rose Maths materials are designed to support primary children as they have fun with maths, exploring everything from times tables and number bonds to money and multiplication.

White Rose primary maths resources are designed to instil a deeper understanding of mathematical concepts using a full range of fun, inspiring classroom activities. Across the year, Mathematics learning is taught in unit blocks, which are then divided up into a series of small learning steps. These steps are designed and scaffolded to support children with enhancing their knowledge and deepening their understanding and will cover all necessary curriculum content.

### White Rose Maths supports teaching for mastery.

*“At White Rose we use a mastery approach to maths teaching. This is a research-driven teaching and learning method that meets the goals of the National Curriculum.*

*What does it mean in practice? In summary, a mastery approach...*

- ***Puts numbers first:*** *Our schemes have number at their heart, because we believe confidence with numbers is the first step to competency in the curriculum as a whole.*
  - ***Puts depth before breadth:*** *we reinforce knowledge again and again.*
  - ***Encourages collaboration:*** *children can progress through the schemes as a group, supporting each other as they learn.*
- ***Focuses on fluency, reasoning and problem solving:*** *it gives children the skills they need to become competent mathematicians.”*

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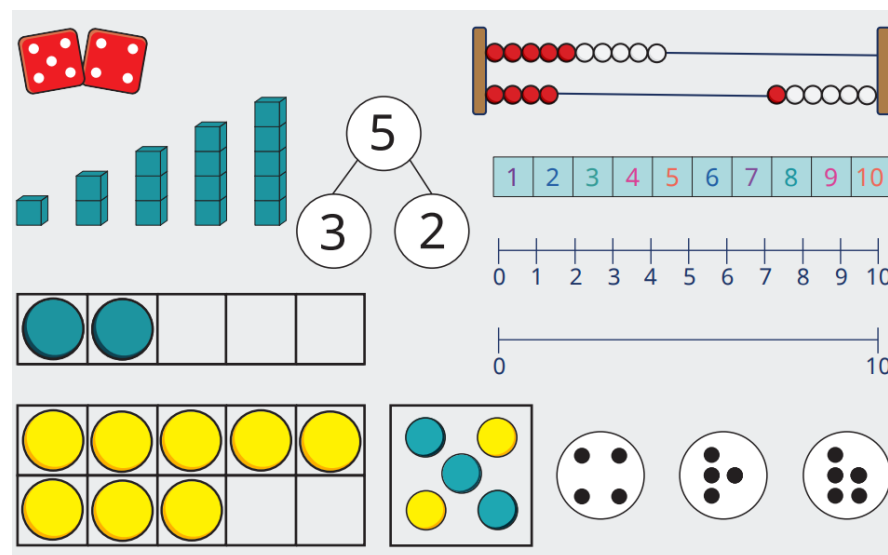
For more information or advice and guidance on how White Rose Maths can support you and your child, go to <https://whiteroseeducation.com/parent-pupil-resources/maths>

## Fluency Bee

In September 2023, we begun using Fluency Bee by *White Rose Education* in Year 1 and Year 2 classrooms. Fluency bee is a structured teaching programme designed to give children increased confidence with numbers through varied and frequent practice. Through these additional short sessions, children will build their knowledge on number sense and fluency and develop their core Maths skills. This is done through a hands-on practical approach using visual images, mathematical talk and games.

### Year 1 Overview, key representations and resources

Stage 1						Stage 2		
Block 1 Perceptual subitising	Block 2 Conceptual subitising	Block 3 Composition to 5	Block 4 Comparison to 5	Block 5 1 more (within 5)	Block 6 1 less (within 5)	Block 1 Composition of 6 and 7	Block 2 Composition of 8 and 9	
Stage 2		Stage 3						
Block 3 Composition of 10	Block 4 Comparison to 10	Block 1 Introduction to addition and subtraction	Block 2 1 more (within 10)	Block 3 1 less (within 10)	Block 4 Add and subtract with 0	Block 5 Odd and even numbers	Block 6 Doubles to 10	
Stage 3			Stage 4			Stage 5		
Block 7 Add 2	Block 8 Subtract 2	Block 9 Final facts	Block 1 Ten and a bit 11-15	Block 2 Ten and a bit 16-20	Block 3 Comparison to 20	Block 1 Count in 10s	Block 2 Count in 5s	Block 3 Count in 2s



**Stage 1 and 2** explore composition of numbers to 5 and 10. This builds the foundations for the key facts within 10 which are explored in **Stage 3**.

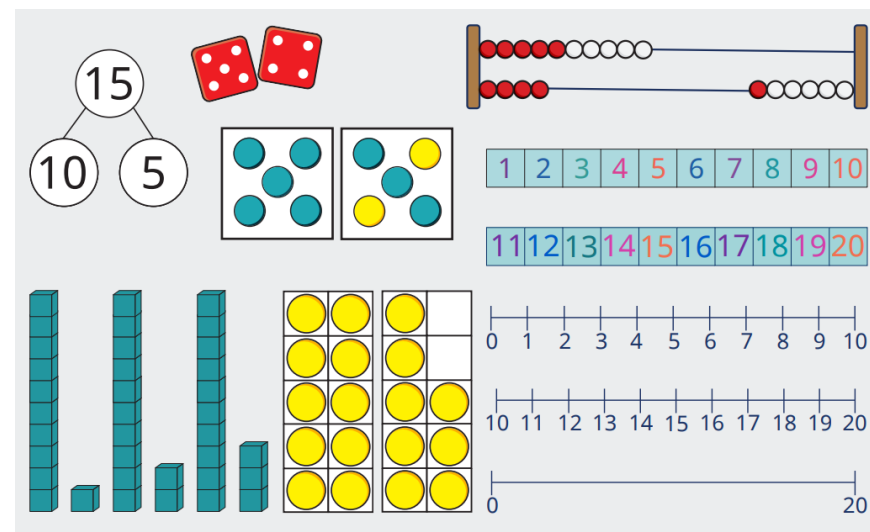
**Stage 4 and Stage 5** build the foundations for the four operations in Year 2.

**Stage 4** focuses on developing children's understanding of the teen numbers which will support them to calculate with numbers to 20 and bridge through 10.

**Stage 5** looks at counting in equal groups to support children's later work on multiplication and division.

## Year 2 Overview, key representations and resources

Stage 1							Stage 2		
<b>Block 1</b> 6 and 7	<b>Block 2</b> 8 and 9	<b>Block 3</b> 10	<b>Block 4</b> Comparison to 10	<b>Block 5</b> Addition and subtraction	<b>Block 6</b> Ten and a bit	<b>Block 7</b> Comparison to 20	<b>Block 1</b> 1 more (within 20)	<b>Block 2</b> 1 less (within 20)	<b>Block 3</b> Make connections
Stage 2					Stage 3				
<b>Block 4</b> Odd and even	<b>Block 5</b> Doubles to 20	<b>Block 6</b> Near doubles	<b>Block 7</b> Add 2	<b>Block 8</b> Subtract 2	<b>Block 1</b> Add through 10	<b>Block 2</b> Subtract through 10	<b>Block 3</b> Bonds to 20		
Stage 4		Stage 5							
<b>Block 1</b> How many?	<b>Block 2</b> Comparison to 100	<b>Block 1</b> Introduction to multiplication and division	<b>Block 2</b> The 2 times-table	<b>Block 3</b> The 10 times-table	<b>Block 4</b> The 5 times-table				



**Stage 1** explores the composition of numbers to 20 and the related addition and subtraction fact families.

**Stage 2** looks at number facts to 20, securing and building on the number facts to 10 explored in Year 1. Links between related facts such as  $5 + 2 = 7$  and  $15 + 2 = 17$  are made explicit.

**Stage 3** focuses on adding and subtracting through 10.

**Stage 4** builds an understanding of the structure of numbers to 100 which will support them to consolidate and apply related facts when calculating with larger numbers in year 3.

**Stage 5** looks at multiplication and the related division facts for the 2, 10 and 5 times-tables.

## **Numbots and TimesTables RockStars**

All children at Stukeley Meadows Primary School have access to and are supported in using Numbots and TimesTables RockStars (TTRS). All children are encouraged to engage with TTRS/Numbots as home learning for a minimum of 20 minutes per week – practice makes permanent!

### **Numbots:**

Numbots is a highly engaging online platform to support children in learning addition and subtraction. It is designed to support children with their understanding, recall and fluency in mental addition and subtraction. In the programme, children choose their own Bot and progress through the game collecting achievement badges to unlock new levels and challenges. Teachers are able to use the platform to track and support children with their learning, as well as celebrate achievements through certificates.

For more information: <https://numbots.com/#>

To log in: <https://play.numbots.com/account/school-login/1911>

### **TimesTables RockStars (TTRS):**

TTRS is an award winning online Maths programme for children in Years 2-6 to support their fluency and recall in multiplication and division. It is designed to boost children's confidence with multiplication and division in a fun, engaging and competitive way. The question based games adapt progressively to suit each child's learning and allows children and teachers to track progress. In school, children will be set competitions and challenges and given certificates and rewards for completing milestones within the game. It is accessible on any device via app or browser.

For more information: <https://trockstars.com/>

To log in: <https://play.trockstars.com/auth/school/student/1911>

## **Multiplication Check (Year 4)**

Year 4 children will undertake a statutory test to determine pupils recall and fluency of their times tables. The test will be taken in the summer term. Support and encouragement will be given throughout the year and children will perform termly 'mock' tests to better prepare and understand the process.

Parents do not need to do anything different to prepare for this with their child. However, it is incredibly beneficial for children to be encouraged to practice their TimesTables and do TTRS as frequently as possible. Teachers are then able to track progress and support children where necessary.

For more information: <https://www.gov.uk/government/publications/multiplication-tables-check-information-for-parents>

## Mathematical Vocabulary

Mathematical vocabulary is a key focus in the teaching of Maths at Stukeley. Teachers are passionate about the usage of subject specific terminology and providing children with a clear understanding of its meaning. At Stukeley we have our own Mathematical vocabulary progression document, linked here: [Mathematical vocabulary and progression.pdf](#)

This document details the key words and vocabulary introduced in each Year Group and in which unit of learning. However, if you require more information or clarity about any terminology used, this can be found in the NCETM National Curriculum Vocabulary Overview, linked below.

<https://www.ncetm.org.uk/media/hpihri3s/national-curriculum-glossary.pdf>

## Calculation Policy

Our updated calculation policy for 2023-2024 is now available. It demonstrates some of the techniques and skills that children may practice when learning the four operations:

Calculation policy: <https://assets.whiteroseeducation.com/new-schemes/Addition%20and%20subtraction%20calculation%20policy%20July%202022%20v2.pdf>

## What do Maths lessons look like at Stukeley?

Every Maths lesson at Stukeley starts with retrieval. Children will have daily 'Do Now' time at the start of each lesson, dedicated to retrieving knowledge and skills previously developed in order to foster fluency and efficiency. Retrieval is a crucial part of the lesson, as it is accessible and achievable for all children, which ensuring that common misconceptions and gaps in learning are addressed to the aid the progression of Maths Mastery.

Following this, the 'small step' for the lesson will then be taught to the children, with opportunities for children to "have a go" and work collaboratively throughout. Hands-on learning is promoted to all children at Stukeley using relevant resources and peer discussion. Work completed in Maths lessons will be recorded in our *White Rose* workbooks which are specific to each topic. Additional work such as "challenge mountains" or supported work will be completed in Maths exercise books.

Children are given over the shoulder, instant feedback on their learning during the lesson to ensure that any errors or misconceptions are addressed as quickly as possible and supported where necessary. Teachers and additional adults will support all children to make progress, whether there be gaps in knowledge or opportunities for challenge and stretch.

## The Long Term Overview

At Stukeley, we plan our Maths lessons using *White Rose Maths* resources, which are in line with the National Curriculum and DfE guidance. Teachers are encouraged to use additional resources to supplement learning from a variety of sources, including: 'I see reasoning' and 'I see Maths' – Gareth Metcalf, NRICH and NCETM Mastery documents. A carefully planned learning journey of small steps is taken to ensure that all children can master concepts before moving on. There is coherent progression seen in planning within each unit to ensure learning is sequential and builds on previous knowledge, skills and vocabulary.

# EYFS

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn term	Getting to know you		<b>Match, sort and compare</b> FREE TRIAL VIEW	<b>Talk about measure and patterns</b> VIEW	<b>It's me 1, 2, 3</b> VIEW		<b>Circles and triangles</b> VIEW		<b>1, 2, 3, 4, 5</b> VIEW		<b>Shapes with 4 sides</b> VIEW	
Spring term	<b>Alive in 5</b> VIEW	<b>Mass and capacity</b> VIEW	<b>Growing 6, 7, 8</b> VIEW	<b>Length, height and time</b> VIEW	<b>Building 9 and 10</b> VIEW		<b>Explore 3-D shapes</b> VIEW					
Summer term	<b>To 20 and beyond</b> VIEW	<b>How many now?</b> VIEW	<b>Manipulate, compose and decompose</b> VIEW	<b>Sharing and grouping</b> VIEW	<b>Visualise, build and map</b> VIEW		<b>Make connections</b> VIEW	<b>Consolidation</b>				

# Year 1

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn term	Number <b>Place value</b> (within 10) FREE TRIAL VIEW					Number <b>Addition and subtraction</b> (within 10) VIEW					Geometry Shape VIEW	Consolidation
Spring term	Number <b>Place value</b> (within 20) VIEW			Number <b>Addition and subtraction</b> (within 20) VIEW		Number <b>Place value</b> (within 50) VIEW		Measurement <b>Length and height</b> VIEW		Measurement <b>Mass and volume</b> VIEW		
Summer term	Number <b>Multiplication and division</b> VIEW			Number <b>Fractions</b> VIEW		Geometry <b>Position and direction</b> VIEW	Number <b>Place value</b> (within 100) VIEW		Measurement <b>Money</b> VIEW	Measurement <b>Time</b> VIEW		Consolidation



## Year 2

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn term	<p>Number</p> <h3>Place value</h3> <p>FREE TRIAL</p> <p>VIEW</p>				<p>Number</p> <h3>Addition and subtraction</h3> <p>VIEW</p>				<p>Geometry</p> <h3>Shape</h3> <p>VIEW</p>			
Spring term	<p>Measurement</p> <h3>Money</h3> <p>VIEW</p>	<p>Number</p> <h3>Multiplication and division</h3> <p>VIEW</p>				<p>Measurement</p> <h3>Length and height</h3> <p>VIEW</p>	<p>Measurement</p> <h3>Mass, capacity and temperature</h3> <p>VIEW</p>					
Summer term	<p>Number</p> <h3>Fractions</h3> <p>VIEW</p>			<p>Measurement</p> <h3>Time</h3> <p>VIEW</p>			<h3>Statistics</h3> <p>VIEW</p>	<p>Geometry</p> <h3>Position and direction</h3> <p>VIEW</p>		<p>Consolidation</p>		

# Year 3

Week 1    Week 2    Week 3    Week 4    Week 5    Week 6    Week 7    Week 8    Week 9    Week 10    Week 11    Week 12

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn term	<p>Number</p> <h2>Place value</h2> <p>FREE TRIAL</p> <p><a href="#">VIEW</a></p>			<p>Number</p> <h2>Addition and subtraction</h2> <p><a href="#">VIEW</a></p>				<p>Number</p> <h2>Multiplication and division A</h2> <p><a href="#">VIEW</a></p>				
Spring term	<p>Number</p> <h2>Multiplication and division B</h2> <p><a href="#">VIEW</a></p>			<p>Measurement</p> <h2>Length and perimeter</h2> <p><a href="#">VIEW</a></p>		<p>Number</p> <h2>Fractions A</h2> <p><a href="#">VIEW</a></p>		<p>Measurement</p> <h2>Mass and capacity</h2> <p><a href="#">VIEW</a></p>				
Summer term	<p>Number</p> <h2>Fractions B</h2> <p><a href="#">VIEW</a></p>		<p>Measurement</p> <h2>Money</h2> <p><a href="#">VIEW</a></p>	<p>Measurement</p> <h2>Time</h2> <p><a href="#">VIEW</a></p>			<p>Geometry</p> <h2>Shape</h2> <p><a href="#">VIEW</a></p>	<h2>Statistics</h2> <p><a href="#">VIEW</a></p>		<p>Consolidation</p>		

# Year 4

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn term	Number <b>Place value</b> FREE TRIAL  <a href="#">VIEW</a>			Number <b>Addition and subtraction</b>  <a href="#">VIEW</a>			Measurement <b>Area</b>  <a href="#">VIEW</a>	Number <b>Multiplication and division A</b>  <a href="#">VIEW</a>			Consolidation	
Spring term	Number <b>Multiplication and division B</b>  <a href="#">VIEW</a>		Measurement <b>Length and perimeter</b>  <a href="#">VIEW</a>		Number <b>Fractions</b>  <a href="#">VIEW</a>			Number <b>Decimals A</b>  <a href="#">VIEW</a>				
Summer term	Number <b>Decimals B</b>  <a href="#">VIEW</a>	Measurement <b>Money</b>  <a href="#">VIEW</a>	Measurement <b>Time</b>  <a href="#">VIEW</a>	Consolidation		Geometry <b>Shape</b>  <a href="#">VIEW</a>	Statistics  <a href="#">VIEW</a>	Geometry <b>Position and direction</b>  <a href="#">VIEW</a>				

## Year 5

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn term	Number <b>Place value</b> FREE TRIAL VIEW			Number <b>Addition and subtraction</b> VIEW		Number <b>Multiplication and division A</b> VIEW			Number <b>Fractions A</b> VIEW			
Spring term	Number <b>Multiplication and division B</b> VIEW			Number <b>Fractions B</b> VIEW		Number <b>Decimals and percentages</b> VIEW			Measurement <b>Perimeter and area</b> VIEW		<b>Statistics</b> VIEW	
Summer term	Geometry <b>Shape</b> VIEW			Geometry <b>Position and direction</b> VIEW		Number <b>Decimals</b> VIEW			Number <b>Negative numbers</b> VIEW	Measurement <b>Converting units</b> VIEW		Measurement <b>Volume</b> VIEW

# Year 6

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn term	Number <b>Place value</b> FREE TRIAL  <a href="#">VIEW</a>		Number <b>Addition, subtraction, multiplication and division</b>  <a href="#">VIEW</a>				Number <b>Fractions A</b>  <a href="#">VIEW</a>		Number <b>Fractions B</b>  <a href="#">VIEW</a>		Measurement <b>Converting units</b>  <a href="#">VIEW</a>	
Spring term	Number <b>Ratio</b>  <a href="#">VIEW</a>	Number <b>Algebra</b>  <a href="#">VIEW</a>	Number <b>Decimals</b>  <a href="#">VIEW</a>	Number <b>Fractions decimals and percentages</b>  <a href="#">VIEW</a>	Measurement <b>Area, perimeter and volume</b>  <a href="#">VIEW</a>	Statistics  <a href="#">VIEW</a>						
Summer term	Geometry <b>Shape</b>  <a href="#">VIEW</a>		Geometry <b>Position and direction</b>  <a href="#">VIEW</a>		Themed projects, consolidation and problem solving  <a href="#">VIEW</a>							

## Helpful links and resources:

### Curriculum:

Primary Maths National Curriculum: [https://assets.publishing.service.gov.uk/media/5a7da548ed915d2ac884cb07/PRIMARY\\_national\\_curriculum\\_-\\_Mathematics\\_220714.pdf](https://assets.publishing.service.gov.uk/media/5a7da548ed915d2ac884cb07/PRIMARY_national_curriculum_-_Mathematics_220714.pdf)

EYFS Maths curriculum guidance: <https://help-for-early-years-providers.education.gov.uk/mathematics>

DfE Guidance: <https://www.gov.uk/government/publications/teaching-mathematics-in-primary-schools>

### Apps and games to support learning:

White Rose 1 minute Maths: <https://whiteroseeducation.com/1-minute-maths>

Top Marks EYFS Maths games: <https://www.topmarks.co.uk/maths-games/3-5-years/counting>

Top Marks KS1 Maths games: <https://www.topmarks.co.uk/maths-games/5-7-years/counting>

Top Marks KS2 Maths games: <https://www.topmarks.co.uk/maths-games/7-11-years/ordering-and-sequencing>

NRICH Maths games KS2: <https://nrich.maths.org/9413>

NRICH Maths support and games: <https://nrich.maths.org/parents/primary>

NRICH Early Years Maths support and games: <https://nrich.maths.org/parents/early-years>

BBC Bitesize Maths games: <https://www.bbc.co.uk/bitesize/articles/zdjkiifr>