



## Fen Ditton Primary School Maths Long Term Overview

### Big Ideas and Approach

*Mathematics is a creative and highly inter-connected discipline that is essential for everyday life and building successful global citizens.*

At Fen Ditton, we deliver a mastery mathematics curriculum whereby children are challenged to deepen their understanding before accelerating on to new concepts. Mathematical topics are covered in depth and children are given regular opportunities to think deeply about mathematics, enabling children to store mathematical knowledge and understanding in their long-term memories.

**There are five big ideas that underpin teaching for mastery:**

- **Coherence:** Lessons are broken down into small, connected steps that gradually unfold the concept, providing access for all children and leading to a generalisation of the concept and the ability to apply the concept to a range of contexts.
- **Representation and Structure:** Representations used in lessons expose the mathematical structure being taught, the aim being that students can do the maths without recourse to the representation.
- **Mathematical Thinking:** If taught ideas are to be understood deeply, they must not merely be passively received but must be worked on by the student: thought about, reasoned with and discussed with others.
- **Fluency:** Quick and efficient recall of facts and procedures and the flexibility to move between different contexts and representations of mathematics.
- **Variation:** Variation is twofold. It is firstly about how the teacher represents the concept being taught, often in more than one way, to draw attention to critical aspects, and to develop deep and holistic understanding. It is also about the sequencing of the episodes, activities and exercises used within a lesson and follow up practice, paying attention to what is kept the same and what changes, to connect the mathematics and draw attention to mathematical relationships and structure.

At Fen Ditton, from Reception to Year 6, our mathematics lessons follow the **White Rose** Mastery Curriculum as well as being complimented by additional guidance and resources including the NCETM resources and DFE Mathematics Guidance. The maths curriculum provides regular opportunities for children to build their skills in the different elements of maths:

- **Fluency** - knowing key mathematical facts and being able to recall them quickly and accurately.
- **Reasoning** - applying logical thinking to a situation to derive the correct problem solving strategy for a given question, and using this method to develop and describe a solution.
- **Problem Solving** - finding a way to apply knowledge and skills you have to answer unfamiliar types of problems.

## Reception Yearly Overview

TERM	AUTUMN ONE	AUTUMN TWO	SPRING ONE	SPRING TWO	SUMMER ONE	SUMMER TWO
<b>MATHEMATICS SKILLS</b> <a href="#">(White Rose Maths)</a>	<p><b><u>STATUTORY FRAMEWORK</u></b>            Developing a strong grounding in number is essential so that all children develop the necessary building blocks to excel mathematically. Children should be able to count confidently, develop a deep understanding of the numbers to 10, the relationships between them and the patterns within those numbers. By providing frequent and varied opportunities to build and apply this understanding - such as using manipulatives, including small pebbles and tens frames for organising counting - children will develop a secure base of knowledge and vocabulary from which mastery of mathematics is built. In addition, it is important that the curriculum includes rich opportunities for children to develop their spatial reasoning skills across all areas of mathematics including shape, space and measures. It is important that children develop positive attitudes and interests in mathematics, look for patterns and relationships, spot connections, ‘have a go’, talk to adults and peers about what they notice and not be afraid to make mistakes</p>					
	<p><b><u>BASELINE CHECKPOINTS</u></b></p> <ul style="list-style-type: none"> <li>• Oral counting as far as possible, number recognition 0-20</li> <li>• Count a set of objects – note the number that child is accurate to, matching one to one, whether moves the items</li> <li>• Count out a set of objects from a larger set</li> <li>• Subitising dice spots and irregular set</li> <li>• Awareness of addition, subtraction and notation +=</li> <li>• Continue a simple repeating pattern</li> <li>• Positional vocabulary</li> </ul>					
	<p><b><u>Getting to know you</u></b>  <b><u>Just like me</u></b>            Match and sort            Making comparisons            (Compare amounts, size, mass and capacity)            Exploring Pattern (Make simple patterns)</p>	<p><b><u>It’s me 1, 2, 3!</u></b>            Representing 1, 2, 3            Comparing 1, 2, 3            Composition of 1, 2, 3            Geometry and spatial thinking (Circles and triangles Spatial awareness)</p> <p><b><u>Light and dark</u></b> Numbers to 5 (4&amp;5)            One more and one less</p>	<p><b><u>Alive in 5!</u></b>            Introducing zero            Comparing numbers to 5            Composition of 4 and 5            Compare mass (2)            Compare capacity (2)</p> <p><b><u>Growing 6, 7, 8</u></b>            6, 7 and 8            Making pairs            Combining 2 groups            Length and height            Time</p>	<p><b><u>Building 9 and 10</u></b>            9 and 10            Comparing numbers to 10            Bonds to 10            3D shape Pattern (2)            Consolidation</p>	<p><b><u>To 20 and beyond</u></b>            Building numbers beyond 10            Counting patterns beyond 10            Spatial reasoning (1)</p> <p><b><u>First, then, now</u></b>            Adding more            Taking away            Spatial reasoning (2)</p>	<p><b><u>Find my pattern</u></b>            Doubling Sharing and grouping Even and odd            Spatial reasoning (3)</p> <p><b><u>On the move</u></b> Deepening understanding            Patterns and relationships            Spatial reasoning (4)</p>

**Year 1 Yearly Overview**

	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	Number <b>Place value (within 10)</b>					Number <b>Addition and subtraction (within 10)</b>					Geometry <b>Shape</b>	Consolidation
Spring	Number <b>Place value (within 20)</b>			Number <b>Addition and subtraction (within 20)</b>			Number <b>Place value (within 50)</b>		Measurement <b>Length and height</b>		Measurement <b>Mass and volume</b>	
Summer	Number <b>Multiplication and division</b>			Number <b>Fractions</b>		Geometry <b>Position and direction</b>	Number <b>Place value (within 100)</b>		Measurement <b>Money</b>	Measurement <b>Time</b>		Consolidation

**Year 2 Yearly Overview**

	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	Number <b>Place value</b>				Number <b>Addition and subtraction</b>					Geometry <b>Shape</b>		
Spring	Measurement <b>Money</b>	Number <b>Multiplication and division</b>					Measurement <b>Length and height</b>		Measurement <b>Mass, capacity and temperature</b>			
Summer	Number <b>Fractions</b>			Measurement <b>Time</b>			<b>Statistics</b>		Geometry <b>Position and direction</b>		<b>Consolidation</b>	

## Year 3 Yearly Overview

	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	Number <b>Place value</b>			Number <b>Addition and subtraction</b>				Number <b>Multiplication and division A</b>				
Spring	Number <b>Multiplication and division B</b>			Measurement <b>Length and perimeter</b>			Number <b>Fractions A</b>		Measurement <b>Mass and capacity</b>			
Summer	Number <b>Fractions B</b>		Measurement <b>Money</b>	Measurement <b>Time</b>			Geometry <b>Shape</b>		Statistics		Consolidation	



## Year 4 Yearly Overview

	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	Number <b>Place value</b>				Number <b>Addition and subtraction</b>			Measurement <b>Area</b>	Number <b>Multiplication and division A</b>			Consolidation
Spring	Number <b>Multiplication and division B</b>			Measurement <b>Length and perimeter</b>		Number <b>Fractions</b>			Number <b>Decimals A</b>			
Summer	Number <b>Decimals B</b>		Measurement <b>Money</b>		Measurement <b>Time</b>		Consolidation	Geometry <b>Shape</b>		Statistics	Geometry <b>Position and direction</b>	

## Year 5 Yearly Overview

	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	Number <b>Place value</b>			Number <b>Addition and subtraction</b>		Number <b>Multiplication and division A</b>			Number <b>Fractions A</b>			
Spring	Number <b>Multiplication and division B</b>			Number <b>Fractions B</b>		Number <b>Decimals and percentages</b>			Measurement <b>Perimeter and area</b>		Statistics	
Summer	Geometry <b>Shape</b>			Geometry <b>Position and direction</b>		Number <b>Decimals</b>			Number <b>Negative numbers</b>	Measurement <b>Converting units</b>		Measurement <b>Volume</b>

## Year 6 Yearly Overview

	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	Number <b>Place value</b>		Number <b>Addition, subtraction, multiplication and division</b>					Number <b>Fractions A</b>		Number <b>Fractions B</b>		Measurement <b>Converting units</b>
Spring	<b>Ratio</b>		<b>Algebra</b>		Number <b>Decimals</b>		Number <b>Fractions, decimals and percentages</b>		Measurement <b>Area, perimeter and volume</b>		<b>Statistics</b>	
Summer	Geometry <b>Shape</b>			Geometry <b>Position and direction</b>	Themed projects, consolidation and problem solving							