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.

References: White Rose Maths NCETM

Reception/Year 1 Maths Long Term Overview

TERM	AUTUMN ONE	AUTUMN TWO	SPRING ONE	SPRING TWO	SUMMER ONE	SUMMER TWO
MATHEMATICS SKILLS (White Rose Maths)	**STATUTORY FRAMEWORK** 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					
	BASELINE CHECKPOINTS - Oral counting as far as possible, number recognition 0-20 - Count a set of objects – note the number that child is accurate to, matching one to one, whether moves the items - Count out a set of objects from a larger set - Subitising dice spots and irregular set - Awareness of addition, subtraction and notation +-= - Continue a simple repeating pattern - Positional vocabulary					
	Getting to know you **Just like me** Match and sort Making comparisons (Compare amounts, size, mass and capacity) Exploring Pattern (Make simple patterns)	**It's me 1, 2, 3!** Representing 1, 2, 3 Comparing 1, 2, 3 Composition of 1, 2, 3 Geometry and spatial thinking (Circles and triangles Spatial awareness) **Light and dark** Numbers to 5 (4&5) One more and one less	**Alive in 5!** Introducing zero Comparing numbers to 5 Composition of 4 and 5 Compare mass (2) Compare capacity (2) **Growing 6, 7, 8** 6, 7 and 8 Making pairs Combining 2 groups Length and height Time	**Building 9 and 10** 9 and 10 Comparing numbers to 10 Bonds to 10 3D shape Pattern (2) Consolidation	**To 20 and beyond** Building numbers beyond 10 Counting patterns beyond 10 Spatial reasoning (1) **First, then, now** Adding more Taking away Spatial reasoning (2)	**Find my pattern** Doubling Sharing and grouping Even and odd Spatial reasoning (3) **On the move** Deepening understanding Patterns and relationships Spatial reasoning (4)

Where children in year 1 are able to access the curriculum for their relevant year group, the class teacher will refer to the year 1 curriculum overview.

Year 1/2 Class Maths Long Term 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: Place Value (within 10)				Number: Addition and Subtraction (within 10)					Geometry: Shape	Number: Place Value (within 20)	
Spring	Consolidation	Number: Addition and Subtraction (within 20)			Number: Place Value (within 50)			Measurement: Length and Height		Measurement: Weight and Volume		Consolidation
Summer	Consolidation	Number: Multiplication and Division			Number: Fractions		Geometry: Position and Direction	Number: Place Value (within 100)		Measurement: Money	Measurement: Time	

Where children in year 2 are able to access the curriculum for their relevant year group, the class teacher will refer to the year 2 curriculum overview.

Year 2/3 Class Maths Long Term 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: Place Value Y2 – Numbers to 100 Y3 – Numbers to 1,000			Number: Addition and Subtraction Year 2- Numbers within 100 (including money) Year 3- Numbers within 1,000 (including money)						Number: Multiplication		
Spring	Number: Division		Statistics		Measurement: Length and Height	Geometry: Year 2: Shape, Position and Direction Year 3: Shape and Perimeter			Number: Year 2: Fractions & Consolidation Year 3: Fractions			
Summer	Measurement: Time		Problem solving and efficient methods			Measurement: Year 2: Mass, Capacity and Temperature Year 3: Mass and Capacity			Consolidation and Investigations			

Year 3/4 Maths Long Term 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: Place Value				Number: Addition and Subtraction				Number: Multiplication and Division			
Spring	Number: Multiplication and Division		Measurement: Length, Perimeter and Area		Number: Fractions				Y3: Measurement: Mass and Capacity Y4: Number: Decimals			Consolidation
Summer	Number: Decimals (including Money)			Measurement: Time		Statistics		Geometry: Properties of Shape (including Y4 Position and Direction)				Consolidation

Year 4/5 Maths Long Term 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: Place Value				Number: Addition and Subtraction			Number: Multiplication and Division			Measurement: Length, Perimeter and Area	
Spring	Number: Multiplication and Division		Number: Fractions						Number: Decimals (including Y5 Percentages)			
Summer	Number: Decimals (including Y4 Money)		Measurement: Time	Statistics		Geometry: Properties of Shape			Geometry: Position and Direction	Y4: Consolidation Y5: Converting Units & Volume		Consolidation

Year 5/6 Maths Long Term 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: Place Value		Number: Four Operations					Number: Fractions				
Spring	Y5: Number: Fractions Y6: Number: Ratio		Number: Decimals and Percentages			Y5: Number: Decimals Y6: Number: Algebra		Measurement: Converting Units	Measurement: Perimeter, Area and Volume		Statistics	
Summer	Geometry: Properties of Shape		Geometry: Position and Direction	Y6: SATS		Investigations and Consolidation						