Mathematics at St Mary's C of E Primary School

Intent

At St Mary's, our intent for mathematics is to teach a rich, balanced and progressive curriculum. We aim for our children to be able to use Maths to reason and to solve problems, as well as developing fluent conceptual understanding.

Our policies, resources and schemes support our vision and help children across the school to become fluent and confident mathematicians. We want our children to develop positive mind-set to support them to reason and solve a range of mathematical problems using various strategies.

Teachers and children across the school use a maths mastery approach, using consistent approaches, strategies, visual representations and vocabulary to ensure a deeper understanding of mathematical concepts.

Implementation

- EYFS teachers use the Early Years Foundation Stage Curriculum, as well as White Rose and Mastering the Curriculum schemes, to support their teaching of Mathematics in the Foundation Stage.
- KS1 and KS2 teachers use the National Curriculum, along with the Power Maths scheme, to support their planning and teaching of Mathematics teaching.
- Children in years 2 to 6 regularly practise and reinforce their knowledge and rapid recall of multiplication facts with regular Times Tables Rock Stars activities.
- Correct Mathematical vocabulary is explicitly included in planning and teaching, to ensure that there is a consistency of correct mathematical vocabulary being used across the school. Children are given opportunities to reason and solve problems regularly in all areas of mathematics;
- Children's fluency is developed through practising key skills, repeating, reinforcing and revising.
- Children are given time to practice and improve their calculation strategies, including having opportunities to make appropriate decisions when estimating, calculating and evaluating the effectiveness of their chosen methods.
- Investigative tasks are designed to allow pupils to follow lines of enquiry and develop their own ideas, justifying and proving their answers.
- Children work both collaboratively and independently when solving problems, which require them to persevere and develop resilience. Perseverance is one of our school's Christian values, and thus children are constantly reminded about the importance of perseverance when faced with a solving a problem in maths.

Year	Autumn	Spring	Summer
EYFS	**Getting to know you** Baseline and looking at counting principles (1-1, stable order, cardinal etc) **Just like me!** Match and sorting Comparing amounts Compare size, mass & capacity Make simple patterns **It's me 1, 2, 3!** Representing, comparing & composition of 123 Circles and triangles Spatial awareness (Positional language) **Light and dark** Four Five One more and one less Shapes with 4 sides Night and day (time)	**Alive in 5** Introducing zero Comparing numbers to 5 Composition of 4 & 5 Compare mass Compare capacity **Growing 6, 7, 8** 6, 7, 8 Making pairs Combining 2 groups Length and height Time **Building 9 and 10** 9 & 10 Comparing numbers to 10 Bonds to 10 3-D shape Pattern	**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 (problem solving) Patterns and relationships Spatial reasoning (4)
YEAR 1 **Hockney class also using 'MASTER THE CURRICULUM' SCHEME – BASED ON WHITE ROSE**	Unit 1: Numbers to 10 Unit 2: Part-whole within 10 Unit 3: Addition & subtraction within 10 (1) Unit 4: Addition & subtraction within 10 (2) Unit 5: 2D and 3D shapes Unit 6: Numbers to 20	Unit 7: Addition within 20 Unit 8: Subtraction within 20 Unit 9: Numbers to 50 Unit 10: Introducing length and height Unit 11: Introducing weight and volume	Unit 12: Multiplication Unit 13: Division Unit 14: Halves and quarters Unit 15: Position and direction Unit 16: Numbers to 100 Unit 17: Time Unit 18: Money
YEAR 2	Unit 1: Numbers to 10 Unit 2: Addition & subtraction (1) Unit 3: Addition & subtraction (2) Unit 4: Money Unit 5: Multiplication & division (1)	Unit 6:Multiplication & division (2) Unit 7: Statistics Unit 8: Length & height Unit 9: Properties of shapes Unit 10: Fractions	Unit 11: Position & direction Unit 12: Problem solving & efficient methods Unit 13: Time Unit 14: Weight, volume & temperature

Year	Autumn	Spring	Summer
YEAR 3	Unit 1: Place value within 1,000 Unit 2:Addition & subtraction (1) Unit 3:Addition & subtraction (2) Unit 4: Multiplication & division (1)	Unit 5:Multiplication & division (2) Unit 6: Money Unit 7: Statistics Unit 8: Length Unit 9: Fractions (1)	Unit 10: Fractions (2) Unit 11: Time Unit 12: Angles & properties of shapes Unit 13: Mass Unit 14: Capacity
YEAR 4	Unit 1:Place value– 4-digit numbers (1) Unit 2:Place value– 4-digit numbers (2) Unit 3: Addition & subtraction Unit 4: Perimeter Unit 5: Multiplication & division (1)	Unit 6:Multiplication & division (2) Unit 7: Measure - area Unit 8: Fractions (1) Unit 9: Fractions (2) Unit 10: Decimals	Unit 11: Decimals (2) Unit 12: Money Unit 13: Time Unit 14: Statistics Unit 15: Geometry- angles and 2D shapes Unit 16: Geometry- position and direction
YEAR 5	Unit 1:Place value within 100,000 Unit 2:Place value within 1,000,000 Unit 3: Addition & subtraction Unit 4: Graphs & tables Unit 5: Multiplication & division (1) Unit 6: Measure – area & perimeter	Unit 7:Multiplication & division (2) Unit 8: Fractions (1) Unit 9: Fractions (2) Unit 10: Fractions (3) Unit 11: Decimals and percentages	Unit 12: Decimals Unit 13: Geometry- properties of shapes (1) Unit 14: Geometry- properties of shapes (2) Unit 15: Geometry- position and direction Unit 16: Measure – converting units Unit 17: Measure – volume & capacity
YEAR 6	Unit 1:Place value within 10,000,000 Unit 2: Four operations (1) Unit 3: Four operations (2) Unit 4: Fractions (1) Unit 5: Fractions (2) Unit 6: Geometry- position and direction	Unit 7: Decimals Unit 8: Percentages Unit 9: Algebra Unit 10: Measure – imperial & metric Unit 11: Measure – perimeter, area & volume Unit 12: Ratio & proportion	Unit 13: Geometry- properties of shapes Unit 14: Problem solving Unit 15: Statistics

Impact

The impact of our mathematics curriculum is that:

- Children have a deeper understanding of mathematical topics
- Children and staff use consistent mathematical vocabulary
- Children have a range of strategies to solve mathematical problems
- Children will have a better understanding of 'key knowledge', such as place value, times tables knowledge and four operations
- Children will have a deeper understanding of mathematical topics
- All staff are confident and engaged in teaching maths through a mastery approach
- All staff use consistent strategies, vocabulary and representations

- Children will build on knowledge from previous years
- Children will be sufficiently challenged and engaged