Mathematics

At Holy Family, the aim is to develop skilled mathematicians who can confidently negotiate maths and problem-solving in the real world. We strive to teach an ambitious and engaging mastery curriculum that nurtures an enjoyment for maths and an ability to reason and problem-solve. Our goal is that every child leaves Holy Family school enjoying maths and with a secure foundation of knowledge that they can apply in their wider life.

In Foundation and Key Stage 1, our aim is for children to have a deep and secure knowledge of number. A strong understanding of number is an essential building block to a solid foundation in maths. We believe a 'CPA' (concrete, pictorial, abstract) approach is the best way to achieve this. Children are exposed to number in many ways through their classroom environment, as well as through use of manipulatives and other resources (such as number lines), before moving on to reading, writing and understanding the place value of larger numbers. Children are encouraged to look for patterns and make connections to use their maths in many contexts. Children are introduced to 2D and 3D shapes and begin to describe them with confidence. Problem solving in Foundation and Key Stage 1 is based on creative, open-ended practical activities that promote mathematical thinking. Mathematical vocabulary is taught explicitly to give children the language with which to explore and discuss their maths.

In Key Stage 2, the knowledge acquired in Foundation and Key Stage 1 is consolidated and expanded. Holy Family children become fluent in the fundamentals of maths through varied and frequent practise of the four operations using larger numbers. Children are supported to explore the interconnected properties of fractions, decimals and percentages through a variety of activities. Shape is investigated more closely and children learn to accurately draw and define the properties of a variety of 2D and 3D shapes. Children are able to combine their secure knowledge of number and ability to make connections to reason mathematically and solve increasingly complex problems. Mathematical vocabulary is developed more broadly and children are encouraged to have mathematical conversations with peers and adults. As children become more confident with a variety of strategies, they are encouraged to discuss and make decisions about which strategy is more efficient in different contexts. This allows children to think critically and develop autonomy in their maths education.

Overview of Maths Planning

Our teachers use White Rose Maths as a springboard to support them in planning and resourcing lessons which suit our children. Teachers generally follow the curriculum laid out in this table, but may adjust topics as needed as the year progresses. Teachers have the autonomy to adapt learning as much as they see fit and prioritise key areas of the curriculum to ensure children have a secure understanding of the key concepts for their year group. Children are given the opportunity to revisit their learning regularly.

	Advent 1	Advent 2	Lent 1	Lent 2	Pentecost 1	Pentecost 2
Nursery	Recognising colours Matching and sorting objects Number rhymes	Counting and recognising 1 and 2 AB, then ABC patterns	Numbers 3, 4 and 5 Introducing shapes Recognising patterns Ordering by length	The number 6 Introducing tens frame Mass and Capacity	Sequencing Positional language More than and fewer 2D and 3D shape Describe a route	Before and after Writing numbers to 5 Talk about size Weight, capacity, length
Reception	Match, sort and compare objects Talk about measure and patterns	Find and represent numbers 1-5 Circles and triangles Shapes with 4 sides	Find and represent numbers 0-5 Mass and capacity Numbers 6, 7, 8	Explore length, height and time Building 9 and 10 Explore 3D shapes	Counting up to and beyond 20 'Add' and 'take away' Composition of 2D shapes Sharing and grouping	Visualise, build and map patterns Make connections
Year 1	Place Value within 10 Addition and subtraction to 10	Addition and subtraction to 10 2D and 3D Shapes	Place value within 20 Addition and Subtraction to 20	Place value within 50 Length and Height Mass and Volume Position and Direction	Multiplication and division (count in 2s, 5s, 10s) Fractions (halves and quarters)	Place value within 100 Measure Money Time (o'clock and half past)
Year 2	Place Value within 100 Addition and subtraction within and beyond 100	Addition and subtraction within 100 Shape	Multiplication and division (2, 10 and 5 times table)	Length and height Mass, capacity and measure Money	Fractions (halves, quarters and thirds) Time to the nearest 5 minutes	Statistics Position and direction
	Consolidation of key concepts throughout the year, based on Question Level Analysis.					

Year 3	Place Value and Addition and Subtraction within 1000	Multiplication and division (3, 4 and 8 times table)	Formal method for multiplication Length and perimeter	Fractions (comparing and understanding equivalence) Time to the nearest minute	Add and subtract fractions Money	Shape Statistics Mass, capacity and measure
Year 4	Place value and formal addition and subtraction within 10,000	Area of shapes Multiplication and division up to 12 times table	Formal method for multiplication and division Length and perimeter	Fractions (compare, add and subtract mixed numbers) Decimals to 2 d.p.	Comparing, ordering and rounding decimals Money Time (12 and 24 hour)	Shape Statistics Position and Direction
	Consolidation of times tables up to 12 x 12 throughout the year.					
Year 5	Place value and addition and subtraction within 1,000,000 Multiplication and Division (factors, multiples, mental strategies)	Fractions (compare, add and subtract mixed numbers)	Formal method for long multiplication Formal division including with remainders Multiplying fractions	Decimals to 3 d.p. Fractions, decimals and percentages Perimeter and area Statistics	Shape Position and Direction Adding and subtracting decimals	Negative numbers Converting units of measure Volume
Year 6	Place value Addition and subtraction Multiplication and division	Fractions – multi-step calculations Converting units of measure	Ratio and proportion Algebra Decimal calculations	Fractions, decimals and percentages Area, perimeter and volume Statistics	Shape Position and direction	Themed projects Consolidation and problem solving
	Consolidation of key concepts throughout the year, based on Question Level Analysis.					