Bishop Ellis Catholic Voluntary Academy

Mathematics Intent

At Bishop Ellis Catholic Primary School we aim to provide a high-quality mathematics education so that children have a profound understanding of God's world, the ability to reason mathematically, an appreciation of the magnificence and power of mathematics, and a sense of delight and inquisitiveness about the subject. We want children to develop a love of maths and be confident mathematicians by the end of Y6, beyond Bishop Ellis up to GCSE and further.
We understand that mathematics is essential to everyday life, critical to science, technology, engineering and necessary for financial literacy and most forms of employment. We aim to ensure that our parents have a clear grasp of this importance as in the past there has been a sense of apathy about the subject from some.

Our curriculum for mathematics aims to ensure that all pupils:

- become fluent in the fundamentals of mathematics, through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge quickly and precisely
- reason mathematically by following a line of enquiry, inferring relationships and generalisations, and developing explanation or proof using mathematical language
- can solve problems by applying their mathematics to a variety of problems with increasing complexity, including breaking down problems into a series of simpler steps and being resolute in seeking solutions

We understand that Mathematics is an interconnected subject in which pupils need to be able to move fluently between representations of mathematical ideas. Our curriculum is, by necessity, organised into apparently distinct domains, but children make rich connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems.
We expect that they should also apply their mathematical knowledge to science and other subjects. The expectation is that the majority of pupils will move through the curriculum at broadly the same pace following the mastery approach.
Children who grasp concepts quickly are challenged through rich and sophisticated problems before any progression through new content. Those who are not sufficiently fluent with previous material will consolidate their understanding through additional practice, before moving on. We use the White Rose scheme of work supplemented with resources from NCETM and N-rich to deliver our maths curriculum.

Children are taught key mathematical knowledge progressively.
For example:

- **Reception** – Children will be introduced to numbers and counting, and will start to use basic mathematical language. An interest in maths and problem solving will be encouraged through maths games and fun activities. Children will be encouraged to talk about maths in the world around them. They will be able to count reliably with numbers from 1 to 20, place them in order and say which number is one more or one less than a given number. Children will use quantities of objects to add and subtract 2 single-digit numbers and be confident with their number bonds to 5.
- **Year 2** – by the end of KS1, children have developed their confidence and mental fluency with whole numbers, counting and place value. They can work with numerals, words and the four operations, including with practical resources (for example, concrete objects and measuring tools). Children should be confident with their number bonds to 20.

- **Year 6** – Children will be able to apply the maths they already know alongside developing new skills to help solve more complex problems. They work with numbers up to 10 million and begin to learn about algebra and ratio. They will be taught long division for dividing four-digit by two-digit numbers and be able to use brackets in calculations and explain remainders. Children will learn to multiply and divide with fractions and decimals, and calculate percentages.

Bishop Ellis Long Term Plan: Maths 2022-2023

Advent

	Week 1 30.8.22	Week 2 5.9.22	Week 3 12.9.22	Week 4 19.9.22	Week 5 26.9.22	Week 6 3.10.22	Week 7 10.10.22	Week 8 24.10.22	Week 9 31.10.22	Wk 10 7.11.22	Wk 11 14.11.22	Wk 12 21.11.22	Wk 13 28.11.22	Wk 14 5.12.22	Wk 15 12.12.22
Reception	Baselines week 1-5 Getting to know you		Baselines week 1-5 Just like me					It's me 1, 2, 3!			Light and dark				Consolidation
Year 1	Number: Place Value (within 10)					Number: Addition and Subtraction (within 10))				Assessment week	Geometry: Shape		Number: Place value (within 20)	Consolidation	
Year 2	Number: Place Value				Number: Addition and Subtraction						Geometry: Shape			Consolidaiton	
Year 3	Place Value			Addition and Subtraction					Multiplication and Division				Assessment Week	Multiplication and Division	Consolidation
Year 4	Place Value				Addition and Subtraction			Area		Multiplication and Division			Assessment Week	Multiplication and Division	Consolidation
Year 5	Place Value			Addition and Subtraction		Multiplication and Division		Assessment Week	Fraction A		Fraction B		Multiplication and Division		Consolidation
Year 6	Place Value		Addition, Subtraction, Multiplication & Division				Assessment Week	Fraction A		Fraction B		Measurement: Converting Units	Assessment Week	Ratio	

Lent

	Week 1 4.1.23	Week 2 9.1.23	Week 3 16.1.23	Week 4 23.1.23	Week 5 30.1.23	Week 6 6.2.23	Week 7 13.2.23	Week 8 27.2.23	Week 9 6.3.23	Wk 10 13.3.23	Wk 11 20.3.23	Wk 12 27.3.23	Wk 13	Wk 14	Wk 15
Reception	Alive in 5			Growing 6, 7, 8;			Building 9, 10		To 20 and beyond			Consolidation			
Year 1	Number: Place value (within 20)		Number: Addition and Subtraction (within 20)			Number: Place Value (within 50)		Assessment week	Measurement: Length and Height		Measurement: mass and volume				
Year 2	Measurement: Money		Number: Multiplication and Division					Assessment week	Measurement: Length and Height		Measurement: mass, capacity & temp				
Year 3	Multiplication and Division		Length and Perimeter			Fractions	Assessment Week	Fractions		Mass, Capacity and temperature					
Year 4	Multiplication and Division		Length and Perimeter		Fractions		Assessment Week	Fractions		Decimals					
Year 5	Multiplication and Division	Fractions		Decimals and Percentages			Statistics	Assessment Week	Area, perimeter		Shape				
Year 6	Algebra		Decimals		Assessment Week	Fractions, Decimals & Percentages		Area, perimeter and volume		Statistics		Position & Direction			

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Pentecost

	Week 1 17.4.23	Week 2 24.4.23	Week 3 1.5.23	Week 4 8.5.23	Week 5 15.5.23	Week 6 22.5.23	Week 7 5.6.23	Week 8 12.6.23	Week 9 19.6.23	Wk 10 26.6.23	Wk 11 3.7.23	Wk 12 10.7.23	Wk 13	Wk 14	Wk 15
Reception	First, then, now			Find my pattern			On the move			Consolidation and recap					
Year 1	Number: Multiplication and Division			Number: Fractions		Geometry: position and direction	Assessment week	Number: place value (within 100)	Measurement: Money		Measurement: Time				
Year 2	Number: Fractions		Measurement: Time			SATs week	Measurement: Time	Statistics			Geometry: Position and direction				
Year 3	Fractions		Money		Time		Assessment Week	Time	Shape		Statistics				
Year 4	Decimals		Money		Time		Assessment Week	Shape		Statistics	Position and Direction				
Year 5	Shape	Position and Direction		Decimals			Assessment Week	Negative Numbers	Converting Units		Volume	Consolidation			
Year 6	Shape and revision of Core Knowledge			KS2 SATS	Problem Solving and Investigations					KS3 Transition work					