Year Three Mathematics	Intent	Implementation	Impact
	At St John Vianney Catholic Primary School, we recognise that Mathematics is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. We aim to provide a high-quality mathematics education with a mastery approach so that all children: - become fluent in the fundamentals of mathematics; - reason mathematically; - can solve problems by applying their mathematics. (National Curriculum 2014) Our intent for mathematics is to teach a rich, balanced and progressive curriculum using Maths to reason, problem solve and develop fluent conceptual understanding in each area. Staff are supported and aided in their roles ensuring confidence in the skills and facts they are required to teach. Lessons are child focused and maths is kept fun and current in school. Our curriculum allows children to better make sense of the world around them relating the pattern between mathematics and everyday life. Our policies, resources and schemes support our vision e.g. our calculations policy linked to our Mastery Text Book resource, Power Maths, which is based on White Rose Maths, and NCETM Teaching for Mastery. The mapping of Mathematics across school shows clear progression in line with age-related expectations and the National Curriculum. Mathematics in our school is enhanced by our focus on additional practise of key mathematics skills through Assertive Mentoring Weekly Skills Checks and our focus on key instant recall facts (KIRFs). We promote and encourage over learning of key facts through our use of Numbots and TT Rockstars competitions. We constantly seek to improve our provision and we are proud of enhancements made through our collaboration with partner schools within our M.A.C. and our work to develop our mastery approach to mathematics through our involvement with the Central Maths Hub.	The curriculum hours for mathematics are non-negotiable and followed by all staff. Teachers plan three lessons with a number focus per week and two lessons linked to either geometry, statistics or measures. Knowledge organisers linked to each of the mathematical areas, support the children with their learning. High quality teaching responds to the needs of children. Teachers use questioning well and aim to identify and address any misconceptions at an early stage. Planning: Lessons are planned and sequenced so that new knowledge and skills build on previous learning. Staff refer to the Calculation Policy when teaching formal methods but also understand that sometimes children find their own efficient methods along the way. Number bonds and times tables practice take place weekly to give children the opportunity to practise and improve their rapid recall of key mathematics facts. Teaching: At St John Vianney we employ a variety of teaching styles and opportunities for children to learn and develop their Mathematical skills and competencies, both individually and collaboratively. Our pupils are encouraged to physically represent mathematical concepts. Objects and pictures are used to demonstrate and visualise abstract ideas, alongside numbers and symbols. Concrete – children have the opportunity to use concrete objects and manipulatives to help them understand and explain what they are doing. Pictorial – children then build on this concrete approach by using pictorial representations, which can then be used to reason and solve problems. Abstract – With the foundations firmly laid, children can move to an abstract approach using numbers and key concepts with confidence.	The impact of our mathematics curriculum is that children understand the relevance of what they are learning in relation to real world concepts. We have fostered an environment where Maths is fun and where it is accepted that sometimes we will make errors on our journey to finding an answer. The children understand that learning from mistakes is a key skill. The children's Mathematics books demonstrate the use of a range of activities and show evidence of fluency, reasoning and problem solving. Positive verbal and written feedback and early intervention support the children to strive to be the best mathematicians they can be and ensure that a greater proportion of children are on track. The Mathematics leader, in collaboration with the Senior Leadership Team, takes responsibility for the monitoring of the Mathematics curriculum and the standards achieved by the children. The Mathematics leader monitors for appropriate pitch and progression at least once every half term. This monitoring takes the form of: - Lesson observations with written feedback; - Learning walks and pupil voice conversations; - Planning scrutiny followed by support where necessary; - Book scrutiny per term; - Termly data analysis; - Moderation with other Mathematic Subject Leaders with the M.A.C. Data is collected half-termly and reported to SLT. All teachers contribute to a termly Pupil Progress Meetings, where the data is analysed to highlight those pupils not meeting expectations. The meetings focus on target setting and identifying the next steps to support the children to make good or better progress.

Number and Place Value	Addition and Subtraction	Multiplication and Division	Fractions	Geometry	Geometry – Statistics	Measurement
I can count from 0 in multiples of 4, 8, 50 and 100.	I can add and subtract numbers mentally including three-digit numbers and ones.	I can recall and use multiplication and division facts for the 3 times tables.	I can recognise that tenths arise from dividing an object into ten equal parts.	I can make 3-D shapes using modelling materials.	I can interpret and present data using bar charts.	I can measure, compare, add and subtract volume/capacity (l/ml).
I can read and write numbers to 1000 in numerals and words.	I can add and subtract numbers mentally including three-digit numbers and tens.	I can recall and use multiplication and division facts for the 4 times tables.	I can count up and down in tenths.	I can draw 2-D shapes.	I can use simple scales in pictograms.	I can measure, compare, add and subtraction mass (kg/g).
I can find 10 or 100 more or less than any given number.	I can add and subtract numbers mentally including three-digit numbers and hundreds.	I can recall and use multiplication and division facts for the 8 times tables.	I can recognise and use fractions as numbers.	I can recognise and describe 3-D shapes in different orientations.	I can interpret and present data using pictograms.	I can measure the perimeter of simple 2-D shapes.
I can compare and order numbers up to 1000.	I can add numbers with up to three-digits using a written method.	I can calculate mathematical statements for multiplication and division facts I know.	I can compare and order fractions with the same denominator.	I can identify horizontal, vertical, perpendicular and parallel lines.	I can interpret data presented in many contexts.	I can compare durations of events.
I can recognise the place value of each digit in a three-digit number.	I can subtract numbers with up to three-digits using a written method.	I can use mental strategies to multiply a two-digit and a one-digit number.	I can recognise, find and write fractions for a set of objects.	I can recognise angles as a property of shapes and turning.	I can solve one-step and two-step questions using information presented in scaled bar charts, pictograms and tables.	I know the number of seconds in a minutes and the number of days in a month and a year.
I can identify, represent and estimate numbers in different contexts.	I can solve missing number problems for addition and subtraction.	I can solve missing number problems using multiplication and division.	I can recognise and show, using diagrams, equivalent fractions.	I can identify right angles.	I can solve one and two-step problems which include: How many more? How many fewer?	I can tell the time from an analogue clock including using Roman Numerals.

Number and Place Value	Addition and Subtraction	Multiplication and Division	Fractions	Geometry	Geometry – Statistics	Measurement
I can solve number problems and practical problems.	I can estimate the answer to a calculation and inverse to check.	I can solve problems using multiplication and division.	I can add and subtract fractions with the same denominator.	I can identify whether angles are greater than or less than a right angle.		I can tell and write the time from 12-hour and 24-hour clocks.
	I can solve word problems for addition and subtraction.	I can use formal written methods to multiply two-digit and one-digit numbers.	I can solve problems that involve fractions.	I can recognise that two right angles make a half-turn, three make three quarters of a turn and four – a complete turn.		I can add and subtract amounts of money to give change using £ and p.

End of Lower Key Stage 2 Outcomes

The principal focus of mathematics teaching in lower key stage 2 is to ensure that pupils become increasingly fluent with whole numbers and the 4 operations, including number facts and the concept of place value. This should ensure that pupils develop efficient written and mental methods and perform calculations accurately with increasingly large whole numbers.

At this stage, pupils should develop their ability to solve a range of problems, including with simple fractions and decimal place value. Teaching should also ensure that pupils draw with increasing accuracy and develop mathematical reasoning so they can analyse shapes and their properties, and confidently describe the relationships between them. It shuld ensure that they can use measuring instruments with accuracy and make connections between measure and number.

By the end of year 4, pupils should have memorised their multiplication tables up to and including the 12 multiplication table and show precision and fluency in their work.

Pupils should read and spell mathematical vocabulary correctly and confidently, using their growing word-reading knowledge and their knowledge of spelling.