



## **Statement of Intent for Mathematics.**

### **Our School Vision**

*Our school is a place of sanctuary, strength and high achievement where all are heard, respected, encouraged and nurtured.*

*Ever outward looking and rooted in the teachings of Jesus; as stewards of God's creation we aim to grow beyond all we can imagine.*

### **Intent: *Why do we teach this? Why do we teach it in the way we do?***

The national curriculum states *'Mathematics is an interconnected subject in which pupils need to be able to move fluently between representations of mathematical ideas.'*

Therefore, the intention for mathematics is to ensure that all pupils become fluent, reason mathematically and solve problems. *'Pupils should make rich connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems.'*

At St John's, we teach our children how to make sense of the world around them by developing their ability to calculate, reason and solve problems. We want our children to recognise and understand relationships and patterns in numbers in the world around them. We expect Mathematics to be utilised as a tool beyond the daily Mathematics lessons and beyond the classroom.

At St John's, a typical Maths lesson will provide the opportunity for **all** children because:

- Lesson objectives are taken from the National Curriculum statutory guidelines and activities are differentiated through use of the planning tool 'Abacus.'
- Our children have access to high quality lessons that are both challenging and enjoyable.
- We provide our children with a variety of mathematical opportunities, which will enable them to make the connections needed to enjoy greater depth in learning.
- We ensure children are confident mathematicians who are not afraid to take risks.
- We fully develop independent learners with inquisitive minds who have secure mathematical foundations and an interest in self-improvement.

- We make cross-curricular links with our termly topics, local area and current affairs. Through the wider curriculum, the teaching of Mathematics is extended beyond the daily Mathematics lesson. Links are made, where relevant and purposeful, between Topics and Mathematics. This allows children the opportunity to apply Mathematical skills and concepts, as well as enabling children to see that Mathematics is part of everyday life.

**Implementation:** *What do we teach? What does this look like?*

**Planning:** Lessons are planned and sequenced so that new knowledge and skills build on what has been taught before. Teachers follow the online planning tool 'Abacus,' which follows the national framework objectives for Mathematics. Teachers also refer to the Calculation Policy when teaching formal methods, understanding that sometimes children find their own efficient methods along the way.

Each week a Times Tables or Arithmetic focus is planned to give children the opportunity to practise and improve their rapid recall skills of their times tables and arithmetic skills.

Children enjoy the weekly challenge and strive to improve their score and understanding each week. All children in Years 2-6 (Year 1 from the summer term) have access to their own personal account of 'Times Tables Rockstar' (times tables online recall tool) where they can compete against other pupils and classes in school and at home.

**Teaching:** At St John's, we employ a variety of teaching styles and opportunities for children to learn and develop their Mathematical skills and competencies, both individually and collaboratively. The main aim of all lessons is to develop children's knowledge, understanding and skills, applying these to a variety of contexts. One of the key elements in lessons throughout the school should be on developing the children's mental calculation strategies alongside developing the children's written calculation strategies as laid out in the Calculation Policy. (*See Calculation Policy*).

The children's skills, competencies and understanding are developed using the *National Curriculum Progression of Skills* document: [Progression Maps for Key Stages 1 and 2 | NCETM](#)

The progression maps are structured using the topic headings as they appear in the National Curriculum:

- Number and Place Value
- Addition and Subtraction
- Multiplication and Division
- Fractions (including decimals and percentages)
- Ratio and Proportion
- Measurement
- Geometry - properties of shapes
- Geometry - position and direction
- Statistics
- Algebra

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.

**EYFS:** All children in the Foundation Stage have daily opportunities to develop their mathematical understanding, primarily through play, to meet the needs of Development Matters. The 2 strands of Mathematics taught in the EYFS are Numbers and Numerical Patterns

**Impact:** *What will this look like? By the time children leave our school they will:*

At St John's, we expect that by the end of Year 6 our children:

- Become fluent in the fundamentals of mathematics
- Reason mathematically by following a line of enquiry, conjecturing relationships and generalisations.
- Solve problems by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication.

In order for this to happen, the Mathematics leader, the Head teacher and the Senior Leadership Team take responsibility for the monitoring of the Mathematics curriculum and the standards achieved by the children. The Mathematics leader will monitor for appropriate pitch and progression at least once every half term. This monitoring takes the form of:

1. Lesson observations and feedback;
2. Learning walks and pupil voice conversations;
3. Planning scrutiny followed by support where necessary;
4. Book looks on a frequent basis;
5. Termly data analysis;
6. Moderation across the whole school twice a year and consortium year group moderation twice a year.

All teachers contribute to a twice a year Pupil Progress Meeting where the data is analysed and targets are made as well as a focus on next steps