

**ST LUKE'S CE  
PRIMARY SCHOOL**



**CURRICULUM  
STATEMENT FOR**

**MATHEMATICS**

## **Subject Lead: Liam Hardman**

### **1 Aims**

We are guided in our Mathematics teaching by the National Curriculum 2014, which states:

Mathematics is a creative and highly inter-connected discipline that has been developed over centuries, providing the solution to some of history's most intriguing problems. It is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. A high-quality mathematics education therefore provides a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject.

### **2 What will pupils be taught?**

Pupils will be taught through the Maths: No Problem! scheme which covers the following areas of the EYFS Statutory Framework or National Curriculum:

#### **EYFS**

Number

Have a deep understanding of number to 10, including the composition of each number; 14

Subitise (recognise quantities without counting) up to 5;

Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts.

Numerical Patterns: - Verbally count beyond 20, recognising the pattern of the counting system;

Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity;

Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.

#### **KS1**

Number (including Place value, Four Operations and Fractions)

Measurements

Geometry (Properties of Shapes and Position and Movement)

Statistics (Y2)

## **KS2**

Number (including Place value, Four Operations Fractions, Decimals [Y4 onwards] and Percentages [Y5 onwards] )

Measurements

Geometry (Properties of Shapes and Position and Movement)

Statistics (Y6)

Ratio and Proportion (Y6)

Algebra (Y6)

*See the Curriculum Overview for Maths for a further breakdown.*

### **3 How will pupils be taught?**

**3.1** Maths in St Luke's is taught through the Maths: No Problem scheme of work, based upon Singaporean maths methodology.

**3.2** Maths: No Problem is introduced to the children in Reception and is used all through the school. Booster maths sessions from the NCETM are used through Reception to Year 3. We also use Timestables Rock Stars to practise mental maths skills from the middle of Year 2

- a. The curriculum is structured and sequenced, so that each unit builds upon the previous units and important vocabulary is frequently revisited, in order that children learn and remember it.
- b. Subject specific eg mathematics in scientific investigation or geographical field work.

### **4 Inclusion**

**4.1** In line with our ethos of inclusion, it is important that our ambitious maths curriculum can be accessed and enjoyed by **all** pupils. We have the same learning intentions for all pupils, with no lowering of expectations.

#### **4.2 Pupils with Special Educational Needs and / or Disabilities (SEND)**

Just as in all other areas of the curriculum, for the delivery of maths, teachers need to anticipate barriers to participation for pupils with particular SEND. Planning will minimise those barriers so that all pupils can fully take part and learn.

For all pupils to be able to achieve the same learning intentions, it will be necessary to 'adapt teaching' to ensure access through the use of strategies such as:

- Breaking down content into smaller chunks or steps
- Varying levels of support, including effective support from TAs as well as the teacher, e.g. directing a TA to scaffold the learning for a specific pupil or group of

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pupils while ensuring that the development of the pupil's independence and their confidence in themselves as a learner is not compromised as a result

- Removing unnecessary expositions, i.e. keeping spoken language at an amount and at a level that will enable maximum access, with visual support
- Supporting different means of expression / methods of recording,
- Intervening appropriately, i.e. checking on the understanding after a whole class introduction, and providing access to key information to support the learning; observing when a pupil or group of pupils seems to be struggling with a new concept or idea, and creating opportunities to dig deeper into any misconceptions that may have arisen, before these have the chance to become entrenched

Similarly, when assessing pupils with SEND, an altered or alternative method of assessment may be appropriate.

### 4.3 **Mastery**

Maths at St Luke's is taught using the Maths- No Problem! based upon the Singaporean approach to mathematics based around Maths Mastery:

Teaching maths for mastery is a transformational approach to maths teaching which stems from high performing Asian nations such as Singapore. When taught to master maths, children develop their mathematical fluency without resorting to rote learning and are able to solve non-routine maths problems without having to memorise procedures.

*(Taken from the Maths No Problem Website)*

## 5 **Assessment and Reporting**

5.1 The purpose of assessment should be to:

- ensure and evidence progression against the programme of study
- track progression of cohorts and individual pupils
- identify lack of progression in order to trigger catch-up strategies

5.2 Progression in the learning of maths can be evidenced in two main ways:

a) Individual pupil books

The issuing of a maths journal to each pupil gives an opportunity for them to reflect on their work and take pride in their progress. A journal also allows systematic recording of ideas and experiments, showing the journey which children have taken on towards learning a key skill. Books also allow the teacher to comment on or celebrate written work.

Maths journals are used throughout school, giving continuity in learning between academic years.

b) Regular summative assessment

At the end of every unit taught, there is a Review to check the key learning of the topic. Teachers will use this assessment, as well as formative assessment from daily lessons, to know which topics may need further coverage or revision as the year progresses. These can then be focused on at various point, such as during Morning Motivator time.

There are also Termly, Mid-Year and End of Year reviews which cover a range of topics, which teachers may use as assessment.

c) National Assessment Framework

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Year 4 pupils will sit a Multiplication Tables Check in the summer term. This consists of 25 times-tables questions which the children will have a limited time to answer.

Year 6 pupils will sit the End of Key Stage Assessments (SATs) in the summer term, consisting of an arithmetic paper and two reasoning papers.

- 5.3** In line with the assessment policy, a verbal report will be given to parents in the autumn and spring parent-teacher meetings. A comment on maths will form part of the full written report in the summer term.

## **6 Impact**

As a result of high-quality maths teaching, all pupils at St Luke's will:

- become fluent in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils have conceptual understanding and are able to recall and apply their knowledge rapidly and accurately to problems
- reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
- solve problems by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.

## **7 Subject delivery monitoring**

The school's maths lead has responsibility for the implementation of the schemes, the quality of teaching, and levels of pupil progress and achievement. Monitoring the quality of delivery and outcomes can comprise:

- lesson visits
- oversight of planning
- scrutiny of pupils' work
- discussion with teachers
- discussion with pupils

These activities also ensure the maths lead is well-placed to identify any CPD needs.

Liam Hardman  
June 2023