Slindon Church of England Primary School

Mathematics Policy

Approved by:	Headteacher (Laura Webb)
Date:	October 2022
Last reviewed on:	October 2024
Next review due by:	October 2025

Contents

Vision Statement

At Slindon CofE Primary school we serve our local community and enable our school family to flourish. We recognise that everyone is *Unique* and want to ensure they are able to *Learn and Develop* in a high quality learning environment. We enrich the spirit in an *Enabling Environment,* in which *Positive relationships* foster creativity and curiosity. In hope we encourage our community to shine brightly and be courageous advocates of our world, shaping their futures for the better.

The Fruit of the Spirit is love, joy, peace, patience, kindness, goodness, faithfulness, gentleness and self-control; against such things there is no law.

Galatians 5; 22-23

Let Your Light Shine ~ Matthew 5:16

Maths is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. Great Maths teaching 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.

At Slindon, we believe that every child has a right to an education that develops their personality, talents and abilities to the full through a curriculum that is both meaningful and personal to them and arms them with an array of strategies to select from when solving mathematical problems. We strive to instil in our children the resilience and self-belief necessary to be confident individuals who possess the life skills they will require as they move on through their school life and ultimately to the world of employment. It is our aim that children see Maths as being relevant to their world and applicable to everyday life. We take every opportunity to utilise our wonderful outdoor environment as a tool through which we can deliver a high-quality, inter-related and creative Maths experience where children develop the ability to think mathematically and discuss their maths whilst gaining a deep body of knowledge.

Following the introduction of the new National Curriculum in 2014 the emphasis has been to ensure that all children:

- Become FLUENT
- REASON and EXPLAIN mathematically
- Can SOLVE PROBLEMS

This means that children need to be regularly exposed to opportunities involving increasingly complex problem solving which allows them to apply their Maths knowledge. In doing so they should be encouraged to develop an argument and line of enquiry which they can prove and justify using mathematical vocabulary. This includes the ability to break down problems, both routine and non-routine, into a series of steps.

Aims and Objectives

In line with the aims of the National Curriculum for mathematics, we aim to ensure that our pupils gain:

- Deep and sustainable learning in mathematics which they are able to apply to a range of contexts
- An ability to build on previous knowledge
- An ability to reason about a concept and make connections; thinking logically and justifying ideas
- Sound procedural and conceptual understanding
- Fluency with number
- An ability to solve complex problems by breaking them down into smaller steps and showing resilience; knowing the strategies and resources which need to be used
- Knowledge of times tables facts – being secure in the facts (including corresponding division facts) and able to apply them
- Knowledge of number facts e.g. number bonds and how these can be applied across the mathematics curriculum
- An ability to communicate confidently, building on the **positive relationships** they have developed; to explain results verbally and in a written form, using mathematical language and symbols.

Approach

We recognise that all children are **unique** and it is important that children are allowed to explore Maths and present their findings in a variety of ways. Children will therefore not be limited to demonstrating their understanding in a written form; to that end the school will adopt the CPA approach: concrete, pictorial, abstract. This will allow the children to experience the physical aspects of Maths before finding a way to present their findings and understandings in a visual form before relying on the abstract numbers.

Curriculum – EYFS

Mathematics within the EYFS is developed through purposeful, play based experiences and will be represented throughout the indoor and outdoor provision. The learning will be based on pupils' interests and current themes and will focus on the expectations from Development Matters / Early Years Outcomes.

As the pupils progress through, more focus is placed on representing their mathematical knowledge through more formal experiences. Pupils will be encouraged to record their mathematical thinking when ready and this will increase throughout the year.

Curriculum – Year 1 to 6

We teach a blocked Maths curriculum where problem solving and reasoning are an integral part of the daily maths lesson. Each area of the Maths curriculum is taught over a number of weeks in a logical sequence, starting with number concepts, where knowledge and skills learnt can be built on and applied to the next phase of learning.

Whilst we follow a structured curriculum map (White Rose Maths Hub) this is flexible to the needs of the pupils and therefore if a concept has not been grasped thoroughly by most pupils, there is flexibility to adapt the curriculum map and revisit concepts or extend the amount of time spent teaching a specific concept.

Those pupils who grasp concepts more rapidly are given opportunities to deepen their knowledge further and improve their reasoning skills, through rich problems, rather than accelerating on to new curriculum content.

Generally mathematics will be taught discretely to ensure that links are not tenuous, however where there is a clear link to another subject e.g. data handling within science, mathematics skills should be applied to this subject and used to evidence the pupils' depth of understanding.

Inclusion

In line with our ethos of inclusion and our understanding that everybody **learns and develops** in different ways, each child will have an equal entitlement to all aspects of the Maths curriculum and will experience the full range of Maths activities. Therefore, in delivering Maths through the **enabling environment** we have created, care will be taken to ensure that a variety of learning styles are accessed and teaching methods adopted. Where necessary we will adapt the curriculum to meet the needs of the learner.

Interventions will take place both within the Maths lesson and outside; these sessions may be delivered by the teacher or teaching assistant and may involve individual or small group work, accessing both ends of the learning spectrum.

Resources

Each classroom will be resourced with materials to support the delivery of Maths; such items might include number lines, multiplication tables, 100 squares, 2D and 3D shapes, multilink cubes, dice and other smaller items. A wide variety of Numicon resources is available in each classroom. Larger materials such as scales, trundle wheels and measuring cylinders will be held centrally in the store cupboard.

Children should be encouraged to use whatever resources are available to them in the classroom and which they feel would be beneficial to help them when completing Maths work.

Each classroom should have a display dedicated to Maths in the form of a working wall. This supports children's independence in accessing resources to assist them in their current learning. The working wall will display mathematical vocabulary, children's work and modelled examples of the current topic of work where pupil voice should be evident.

Assessment and Reporting

At Slindon Church of England Primary School, children's progress against the National Curriculum learning objectives in Maths is recorded using a number system. Children are assessed within the areas of number, geometry, measurement and statistics.

As each objective is taught, children's achievements are recorded using a number system. When the children have initially been taught a learning objective they are awarded number 1. As the children begin to show greater understanding of an objective, and there is evidence of them applying knowledge in their independent work, they can be awarded number 2. Number 3 is awarded when there is enough evidence to prove that the learning objective has been fully embedded.

Teachers will use targeted questions and problems that require pupils to remember, understand, apply, analyse and evaluate their knowledge and skills. These assessments will then be used to assess the pupils on an ongoing basis and discussed at half termly Pupil Progress Meetings where a judgement will be made about whether a pupil is on track to achieve age-related expectations.

Links to other policies

- Calculation policy
- Marking and feedback policy
- Assessment policy