

## Mathematics Statement of Intent



It is our intention at St Paul's for every child to develop a good understanding of maths, equipping them with the skills of calculation, reasoning and problem solving that they need in life beyond school. We want all children to enjoy maths, experience success and develop a sense of curiosity about the subject with a clear understanding. We believe that all children can achieve in maths and teach for secure and deep understanding of mathematical concepts through manageable steps. We use mistakes and misconceptions as an essential part of learning and provide challenge through rich and sophisticated problems. Maths is a journey and a long-term goal, achieved through exploration, practise and application over time. At each stage of learning, children should be able to demonstrate a deep, conceptual understanding of the topic and be able to build on this.

The National Curriculum for maths aims to ensure that all pupils:

- become **fluent** in the fundamentals of mathematics, including 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 rapidly and accurately.
- **reason mathematically** by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language.
- can **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.

### Implementation

Maths is taught as a single lesson on a daily basis, generally one hour per day, and as a cross-curricular subject as appropriate. We follow the teaching sequence outlined by the White Rose Maths Hub schemes of learning. This ensures that a coherent, consistent approach is adopted in all year groups. These provide teachers with notes and guidance on how to enhance their teaching of the subject along with key vocabulary, questions and discussion and teaching points. The White Rose Maths Hub schemes of learning reflect the content of the Foundation Stage Early Learning Goals and the National Curriculum for Maths.

The curriculum is broken down into small manageable steps in order to ensure that each lesson has a clear focus and helps children understand concepts by following a carefully planned sequence of lessons. This avoids the cognitive overload that can occur when too many concepts are covered at once and ensures that each lesson contributes to the long-term goal. Within each lesson, children have the opportunity to acquire, practice, apply and deepen their knowledge and skills as appropriate. The children who understand concepts quickly are challenged by being offered rich and sophisticated problems to deepen their understanding. Concepts are revisited over time so that

children can reinforce them and embed them into their long-term memory. Teachers have the flexibility to spend longer on specific skills or concepts if they feel it is necessary.

When introduced to a new concept, children have the opportunity to follow the concrete – pictorial - abstract approach. Concrete objects and manipulatives help them understand what they are doing. Alongside these, children use pictorial representations that can be used to help reason and solve problems. Concrete and pictorial representations then help support children's understanding of abstract methods.

All children are included in whole class lessons and teachers provide scaffolding and relevant support as necessary. Children who don't make expected progress are identified and intervention programmes are put in place to support these children. This includes same day intervention that enables children to access the learning planned for the following lesson. For those children who working outside of the year group curriculum, individual learning activities are provided to ensure their progress.

Classroom environments: Classrooms are equipped with learning walls to aid in maths lessons. The content of learning walls is flexible and contains key vocabulary, concepts and knowledge. Some of this is continually revisited and will constantly need to be on display while some will relate to current learning. The Success criteria identified for each new concept will be displayed throughout the teaching also.

Homework: Out of school, children are encouraged to learn number bonds and times tables using the Times Table Rockstars and Numbots websites. Activities relating to a specific maths concepts are sent home half termly by class teachers to help children embed their knowledge.

## **Impact**

Regular and ongoing formative assessment informs day-to-day teaching and learning and the necessary support to enable all pupils to make progress. Each term, teachers complete a summative assessment using Capita of which children are working below, at and above the expected level for their age. Teacher judgements are supported by the use of White Rose Maths Hub planning and assessment materials. All blocked units of work taught include Pre and Post assessment so that the progress of children is closely monitored. NFER standardised tests will also be completed in the Autumn and the Spring. Children who are not making expected progress receive appropriate intervention work.

In-school moderation of learning is conducted by colleagues within the same year group and across school, by the maths subject leader and by the senior leadership team. Maths will be monitored via 'Book Looks', planning, and feedback, learning walks and observations, pupil voice and staff voice.

Our aim at St Paul's is for the children to achieve a good standard in maths. By the end of the Foundation Stage, we aim for a majority of our children to achieve the Early Learning Goals so they are ready to progress onto the National Curriculum. We also aim for our results at the end of Key Stage 1 and Key Stage 2 to be in line with the national average and have a proportion of children achieve greater depth at the end of each stage. At the end of Key Stage 2, we want our children to leave St Paul's as confident, enthusiastic and resilient mathematicians who can recall and apply their mathematical knowledge quickly and accurately in a range of contexts.