

At Spring Grove Primary School, we aim to develop numerate children who are confident with number & understand mathematical calculations, in order to develop problem solving skills. Developing Mathematical knowledge is a key life skill.



Intent - We aim to...



Deliver a mastery curriculum that ensures our pupils become resilient maths learners. We are dedicated to using the maths mastery approach where the children develop a deep understanding of mathematics.



Create a positive attitude to mathematics encouraging aspirations, resilience and curiosity (linked to our school values).



Ensure our children develop the number skills they will use throughout their lives ensuring fluency and the ability to problem solve. We want children to see the significance of maths and to feel confident to use maths skills outside the classroom.



Ensure all teaching staff have high expectations of all children to reach their full potential.



Implementation - How do we achieve our aims?



Strong Foundations

Teachers in the EYFS are guided by their medium term plans, but also **flex** based on their knowledge of the children, so delivery of lesson content is appropriate to individual children and their next steps. EYFS teachers ensure mathematics is taught through an integrated approach and that children learn through a mixture of **adult-led activities** and **child-initiated activities** both inside and outside of the classroom. In EY there is a daily maths meeting with the children where they talk about the day of the week, month and season. They also use tens frames to do the register. Reception complete a daily maths activity using the WRM materials.

Our Curriculum

Key Stage One and Two teachers implement the medium term plans that are suggested by the **White Rose Maths (WRM) Hub** schemes of learning. Nursery and Reception are currently devising their own maths medium term plan to meet the needs of their children. The White Rose Maths Hub schemes of learning provide teachers with exemplification of maths objectives that incorporate **fluency, reasoning** and **problem solving** objectives and support the ideal of depth before breadth- key aims of the National Curriculum. This scheme not only places the teaching of **number** at its heart, but supports a mastery approach to the teaching and learning of maths. Furthermore, planning supports children **working collectively** as a whole group and allows ample of time to build **reasoning** and **problem solving** elements into the curriculum. At the beginning of the Autumn term we use PUMA tests to form our baseline **assessments** and any necessary adjustments are made to future planning to ensure there are no gaps in children's understanding. We also use NTS assessments towards the end of the Autumn term to check **progress** and then again in the middle of the Summer term. Class teachers may also choose to use the WRM end of unit assessments when needed to ensure that learning can be independently applied.

Development of Key Skills



WRM focuses on exploring and **understanding a concept in depth** rather than covering it superficially and then returning several times. **Prior content** is interleaved with new concepts to ensure children are building on previous knowledge. For example; when children learn about measurement they tackle questions that will require them to practise the four operations and fractions. This practice and consolidation enables children to grasp the **links** between topics and understand them more in depth.

A Consistent Approach

Each class teaches five full maths lessons a week. During most lessons there is an expectation to make use of the flashback slides or add some **fluency rehearsal skills**. We follow the White Rose Maths (WRM) medium term planning with adaptations made where necessary. WRM focus on securing the children's understanding of place value before moving onto other areas of mathematics where this understanding needs to be in place.



Implementation (continued)



Enrichment Opportunities

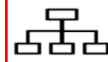
To further **enrich** our maths curriculum and to develop a love of maths, our children have the opportunity to participate in:

- ⇒ The Maths Wizard Competition at Hampton Boys School
- ⇒ Primary Maths Challenge
- ⇒ Junior Maths Challenge
- ⇒ Chess Club
- ⇒ Times Table Rock Star – Winners to be mentioned in assembly once it has been relaunched (March 2023)

Cultural Capital

With our firm belief that **knowledge is transferable**, our pupils are given every opportunity to participate in a wide range of learning experiences beyond their classroom. These experiences include trips to museums, theatres, adventure centres and community projects in and around London. They are also given regular opportunities to participate in school and national competitions to encourage more positive attitudes towards Mathematics. Cultural Capital is the essential knowledge that children need to prepare them for their future success – in the world of work, in relationships forged throughout life and as a valued contributor to society. When beginning their primary school journey in the EYFS, many children arrive to school with different and sometimes more limited experiences than others. Therefore, our aim is to give children the **knowledge and skills to prepare** them for what comes next in their lives. This includes the relevant **vocabulary** needed throughout their education and the opportunity to link maths to real-world problem solving. During the summer term we shall be delivering lessons using financial educational resources which have been developed by Santander. Years One to Six will be learning about many aspects of money including where it comes from, looking after your money, ways to pay, reasons to borrow, keeping track, value for money, ethical spending, budgeting and money in the wider world.

The Five Big Ideas



At Spring Grove Primary School our mathematics planning is underpinned by five key principles. These are: **coherence, variation, fluency, mathematical thinking and representation and structure**. This ensures children can build upon their prior knowledge and make connections between different mathematical structures and the relationships between them. In turn, this encourages children to develop deep and sustained knowledge.

Coherence

Lessons are broken down into small connected steps.

Representation

Used to expose the mathematical structure being taught.

Mathematical Thinking

Thinking deeply about maths, reasoning and discussing ideas.

Fluency

Supporting fluency in number facts and mathematical procedures.

Variation

Learning practices thinking through standard and non-standard examples.

Vocabulary Development

Key mathematical vocabulary is displayed in the classroom. There is an expectation for teachers to model the use of this and to ensure children use the correct vocabulary at all times.

Manipulatives

At Spring Grove Primary School, manipulatives are available in every classroom for children to use. Manipulatives help children to **engage** with **mathematical ideas and concepts** enabling their **understanding** to be more concrete rather than abstract. All staff have a list of resources which are available in the school and these are expected to be used where necessary.

Impact - How will we know we achieved our aims?



All children make progress from a range of starting points.

Children are confident answering fluency, reasoning and problem solving questions.

Children confidently apply their mathematical knowledge to problem solving and other areas of the curriculum.

Children in Year Two and Year Six achieve well in the statutory testing.