



Mathematics at Stanmore Primary School



Mathematics Intent

At Stanmore Primary School, **all** of our children are **mathematicians**. Our intention is to provide the children with a high quality, rich, progressive curriculum which enables them to become fluent in their mathematical thinking and recall, to reason about maths articulately and to confidently solve a range of mathematical problems.

The entire study of mathematics has evolved to help us make more sense of the world around us. We aim for the children to develop a deep understanding of the core principles of maths and how they are connected, so that they can tackle new ideas, concepts and methods as they move into secondary school and beyond.

We want children to be inquisitive about the subject, to appreciate the power of maths, to participate and enjoy learning maths, to become more resilient and to experience 'wow' moments in their learning through their innovative thinking as they become independent and resilient mathematicians.

Children are encouraged to view making mistakes as a fundamental part of the learning process. Our inclusive '**everyone can learn to do maths**' approach ensures that **all** children are expected to be successful in their learning. Our curriculum involves active, practical, hands on experiences that encourage deep thinking and problem solving.

We aim to give every child the core mathematical skills and knowledge needed and the confidence to use them; we want children to see maths as a life-long skill. We hope to inspire as many children as possible to develop a love and enthusiasm about the subject so that they recognise its value in life generally and enter one of the wide range of careers that maths opens up for them.

Mathematics Implementation

How do we teach maths?

Our maths curriculum and daily maths lessons are based on the principles of maths mastery, which means that at the heart of our curriculum is the fundamental belief that **all** children can 'learn maths'. We foster a positive mindset about maths. We also encourage children's learning behaviour, such as resilience and independence skills.

At Stanmore Primary School, children develop their knowledge and understanding of mathematical concepts through a series of interconnected lessons based on small steps of learning. A 'whole class teaching' model is used for the vast majority of children and is interactive, enabling teachers to teach, children to practise and teachers to assess throughout the lesson.

Teachers adapt the learning for individuals through support and challenge within lessons and in their planning, ensuring children are secure in their learning before moving on. Using

this model, the vast majority children learn and move through the maths curriculum at broadly the same pace and are enabled to reach their potential.

Some children with significant learning difficulties follow a curriculum which is designed to meet their specific needs, but this will also follow the same principles of mastery. Some children may need maths interventions. Some children access a weekly 'Maths on the Move' session. These children have been identified through our maths assessment processes, as well as teacher observations, and in some cases observations from outside agencies. This is then monitored by Senior Leaders in the school. In addition to daily maths lessons, all children from Year 1-4 access Number Sense, a programme designed to teach basic number facts. Children in Year 2-5 also access a times tables fluency programme.

Mathematical vocabulary is an essential component to success in maths; this is taught through the use of stem sentences which help the children reason and explain their thinking, for example: *'the whole is divided into four equal parts'* will help children understand and reason about quarters. A deep understanding of mathematical concepts is an essential element of our curriculum. For example, children will not only learn their times tables facts, but they will learn the key principles of multiplicative reasoning, such as the fact that $3 \times 4 = 4 \times 3$.

Our curriculum builds on prior learning and children are taught to use what they do know to find out what they don't know, for example, using their deep understanding of multiplication, they can find out what 8×3 is because they already know 4×3 . We believe that fluency is vital to children progressing through the curriculum and children practise their fluency skills daily across all year groups.

Our curriculum encourages the use of a wide range of concrete resources, pictures and images to help children understand key concepts and help them to tackle more abstract maths. We recognise the importance of taking a consistent whole school approach to the teaching of mathematics in order to close any gaps and to target the highest possible number of children attaining the expected standard or higher by the end of key stage two.

What do we teach and when?

To help structure and plan our lessons, we use White Rose Maths Hub schemes of learning to ensure firm foundations and sequence our learning in small steps. In order to make best use of these schemes of learning, the children also use the White Rose Workbooks.

To supplement our learning at Stanmore Primary School, all children have access to learning platforms including Times Table Rock Stars and NumBots. By Year 4, children should be able to recall their multiplication facts up to 12×12 . To help them develop these skills, children can log on to TTRS using their username and password. Children can practise their tables, improve their Rock Speed and climb the Rockstar ranks!

NumBots is an online game and playing little and often will significantly improve recall and understanding of number bonds and addition and subtraction facts. Children can access NumBots using their username and password.

Children access these both at home and in school.

Mathematics Impact

How do we assess?

Assessment of children's progress in maths takes place daily using assessment for learning or assessment for teaching, whereby the teacher continually adjusts learning through

support and extension. A judgement is made against national expectations in maths each term in years 1 to 6. In key stage 1 this is done through teacher assessment. In key stage two, children are assessed through both teacher assessment and White Rose Maths End of Unit and End of Term papers, which allow teachers to complete a question-by-question analysis of children's answers. In year 6, children are assessed using past SAT papers and teachers use gap analysis to target any gaps in knowledge and understanding.

Statutory assessments in maths

- Children are assessed when they enter our school in EYFS, using the Reception Baseline Assessment.
- Children are assessed at the end of each Key Stage (EYFS, Year 2 and Year 6)
- In Year 4, children complete the national multiplication tables check.

Monitoring of Maths takes place as part of Senior Leader meetings, conversations with teachers, pupil progress meetings, learning walks and book checks. Impact is also measured through end of key stage assessments in EYFS, Year 2 and Year 6 and end of year data collection in all other year groups. Children who are not on track are closely monitored and provided with individual or small group interventions to address gaps in learning.