



# Mathematics Vision



**Subject Leader:** Lori Rose, Sheryl Howard and Lisa Sandys  
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## Vision

At Langney, our vision is for all pupils to leave school with sound mathematical knowledge and skills which they can apply to everyday life. Through a mastery approach, all children will be equipped with the skills to grow mathematical thinking, problem solve and reason by developing positive personal attributes such as resilience, self confidence and self-esteem. We want to instil in our children a love of Maths, so that they leave Langney curious and excited about the world around them and the potential to seek aspirational careers that combine love of numbers with a rewarding profession.



Langney Primary Academy



# Mathematics

## Subject Specific Intent

### Innovation

Based on the National Curriculum, the way Maths is planned and taught is innovative and reflects the school's drive to be at the forefront of education. We follow a 'Teaching for Mastery' approach which places conceptual understanding at the heart of every lesson. We design lessons which provide ongoing opportunities for our children to demonstrate a depth of learning and we continually encourage our pupils to question their own knowledge and understanding.

Curriculum INNOVATION in Mathematics is a result of continuous reflection and change. Our lesson structure provides pupils with daily opportunity to develop fluency, consolidate arithmetic skills, review previous learning, teach key mathematical concepts, and discover patterns and reason. In addition, greater depth challenges are offered to children who have mastered the concept taught and same day intervention is provided for pupils who require further rehearsal. The school's inventive use of Working Walls facilitates teaching and also records progress of concepts taught.

### Being A Centre Of Excellence In All Disciplines

For a number of years the school has been a CENTRE OF MATHEMATICS EXCELLENCE - being a lead school within the Trust as well as for other East Sussex schools. Two of Langney's Maths Subject Leaders are currently enrolled on National Centre of Excellence in the Teaching of Maths (NCETM) courses (one sustaining mastery and one to become a Maths Mastery Specialist Leading Practitioner. As a school we will be supporting local primary schools and our family of Trust schools in developing this approach.

#### *What is Mastery In Mathematics?*

The 'Mastery approach' to Mathematics is underpinned by the belief that all children can achieve in Maths. It rejects the notion that some people 'just can't do Maths' and is characterised by whole-class teaching, where the focus is on all pupils working together on the same concept, at the same time. Differentiation is not planned for as it used to be. In a Langney Maths lesson you will not see children on the 'circle table' adding 1-digit numbers, the 'triangle table' adding 2-digit numbers and the 'square table' adding 3-digit numbers. What you will see instead, is a classroom in which all children are addressing the same learning objective, with the use of carefully planned resources scaffolding and supporting some children in accessing the learning. Differentiation now takes the form of thoughtful, key questioning; the use of appropriate and deliberate concrete resources and the use of carefully crafted 'greater depth tasks' which encourage the children to demonstrate a depth of learning.



# Mathematics

## Subject Specific Intent

### Being A Centre Of Excellence In All Disciplines *(continued)*

This mastery approach does not ignore children who struggle to learn a concept in Maths. The whole-class teaching of a concept actually supports teachers in narrowing the gap between our lowest and highest attaining children, with the majority of children in a class moving through maths concepts at the same pace. For those children who, despite careful scaffolding in a lesson, still struggle to secure a particular concept, the mastery approach ensures that quick intervention takes place; misconceptions and misunderstandings are addressed immediately with the intent that we keep as many children as possible together on the same objective.

### Talent Discovery Of Pupils

In previous years, the children we would describe as 'rapid graspers' – those children we would have labelled as 'high ability' or 'naturally-gifted mathematicians' – would have been rushed through mathematical concepts. In following a mastery approach, the push is not for these children to solve the same type of questions, just with bigger numbers, without ever really grasping a deep understanding of the content they are being taught. Within the mastery approach to the teaching of Mathematics, these 'rapid graspers' are exposed to rich, challenging problems, in which they will need to demonstrate their ability to apply their learning to new and unfamiliar contexts. Through these 'greater depth tasks', our children are given the opportunity to reason, prove and problem solve the Maths they are learning. They are given the opportunity to talk about Maths and demonstrate a breadth and depth of learning, something we have not always seen before.

### A Balance Between Excellence (Standards) and Enjoyment

Langney is a centre of excellence for Maths. We provide the highest standard of teaching for our pupils and achieve this by providing our staff with high-quality, subject specific continuing professional development. The school's team of Maths Professional Development Leads work in close partnership with the Trust and external specialists who provide continuous evaluation, development and support.

There is a BALANCE BETWEEN EXCELLENCE AND ENJOYMENT in Mathematics. In addition to having high expectations in Mathematics, we instil a love for Maths. Mathematics is promoted as a fun and creative subject as children search for patterns and solve puzzles using their deductive thought. Periodically, special maths event days are held to facilitate and promote a passion for the subject.



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## Subject Specific Intent

### Raising Aspirations & Life Chances

Through our Mastery Approach we are providing a maths curriculum tailored to meet the needs of every individual child. Through immediate constructive feedback we remove barriers to learning and offer intervention or further challenge when required. This allows our pupils to develop a positive attitude towards everyday mathematical thinking and achieve their full potential. This sound knowledge will in turn provide pupils with a secure foundation in mathematics which will improve their life chances and opportunities in adult life.

Our high expectations encourage our pupils to reach their goals and aspirations. We actively promote that Maths skills can open the door to a huge range of amazing careers and are particularly essential in the in-demand fields of Science, Technology and Engineering.

### Health & Wellbeing

In a safe learning environment, children have the opportunity to explore a range of physical resources enabling them to access a wide range of mathematical concepts, without fear of making mistakes. Connections are made with everyday life mathematical situations, providing children with skills that raise their confidence and resilience levels. Within the curriculum on offer at Langney, pupils will be introduced to key concepts and skills that will enable them to develop financial literacy for their life ahead. Mathematics is a key element to the school's 'Keep Learning' way to wellbeing.