



ST ANDREW'S C of E INFANT SCHOOL

**WOODLEA ROAD
LEYLAND
PR25 1JL**



Our Maths Curriculum

'Good mathematics is not about how many answers you know. It's about how you behave when you don't know'.

Intent

At St Andrew's we foster positive can do attitudes. We believe all children can achieve in mathematics, and by using a mastery approach we teach for secure and deep understanding of mathematical concepts through manageable steps. At our school, children will spend time becoming true masters of content, applying and being creative with new knowledge in multiple ways. We develop skills essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. A high-quality mathematics education therefore 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.

Our Maths curriculum allows our children to:

- become fluent in the fundamentals of mathematics so that they develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- be able to solve problems by applying their mathematics to a variety of problems with increasing sophistication, including in unfamiliar contexts and to model real-life scenarios.
- reason mathematically using mathematical language.
- have an appreciation of number and number operations, which enables mental calculations and written procedures to be performed efficiently, fluently and accurately to be successful in mathematics.

Implementation

In Early Years we use the Lancashire maths scheme 'Numberland' and in Key Stage One we follow the Red Rose Mastery resources, which we adapt and tailor as appropriate. Additional quality resources such as White Rose Maths are used if needed to meet the needs of our children. This mastery approach ensures that our children have full coverage of the Maths National Curriculum. It allows our children to revisit topics several times over the year allowing their knowledge to deepen. All children are catered for within the maths lessons ensuring that the teacher offers the necessary support and challenge for each



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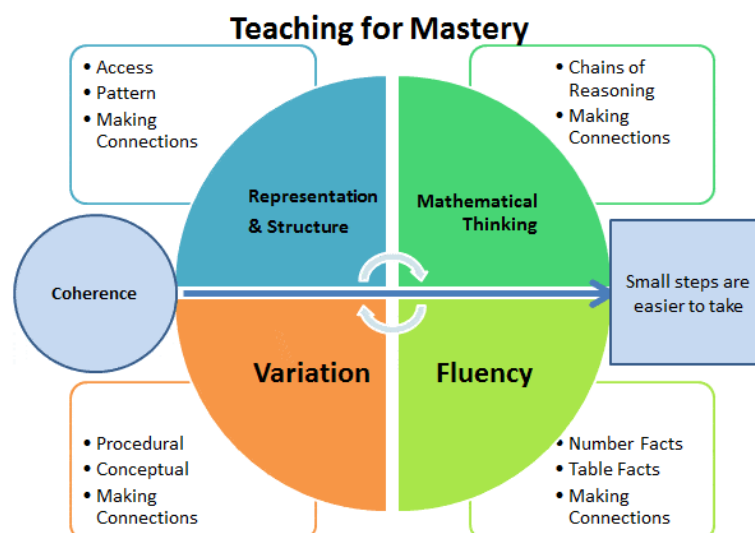
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individual to make progress. Interventions are used to ensure children are ready for their next maths lesson.

We ensure that maths is taught in creative and engaging lessons using a wide array of maths manipulatives to aid and support our children in their learning. New mathematical concepts are introduced using a concrete, pictorial and abstract approach; enabling all children to experience hands-on learning and allowing them to have clear models and images to aid their understanding. ICT is used to enhance the delivery of the maths curriculum including the use of Sumdog to support home learning. We aim to encourage the deepest of learning for our children so that their knowledge can be transferred and applied in many contexts including other subjects and their everyday lives. Maths is widely promoted across the school and our classrooms have up to date working walls that the children can utilise to support their learning and provide extra challenge.

Our aim is to ensure that the three core areas of the national curriculum are covered in all our lessons: fluency, reasoning and problem solving. We offer the children the opportunity to have varied and frequent practice of their maths skills with the focus on their ability to recall and apply their knowledge rapidly and accurately. We do this by ensuring we follow the mastery approach to teaching, detailed in the diagram below.



Mathematical vocabulary is an essential part of each lesson and the children need to understand this within the area they are studying and be able to make rich connections. Each lesson provides children with the opportunity to reason



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through their ideas, use their mathematical language to explore a line of enquiry and problem solve therefore developing their communication skills.

We hope to build problem-solvers of the future and build resilience in our children; essential skills they can use in all aspects of their learning.

Children are taught Mathematics for approximately 1 hour daily. Support is determined during each lesson to ensure secure understanding based on the needs of the child. Challenge is visible throughout the whole session, where children are asked to reason and prove their understanding at a deeper secure level.

The teachers have a flexible approach to the structure of their daily lessons so that they can reach the needs of an ambitious maths curriculum. However all maths lessons must have the following key elements:

- Skills practice (embedding previous learning and building next steps for learning)
- Modelling by the teacher and discussions as a class using mathematical vocabulary
- Independent activity – a variety of fluency, reasoning and problem solving activities presented in different ways.
- Teacher assessment of understanding.
- Questioning to let the children demonstrate what they know and to challenge.

Impact

Staff identify the impact of our curriculum through a variety of ways.

These include:

- Observations
- Regular recall and retrieval activities
- Targeted questioning
- Marking and feedback
- Teacher assessment against key performance indicators
- Formal testing at summative points.
- Pupil discussions
- Analysis of data



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We use these strategies to review our curriculum offer, inform our strategic action planning and make adaptations where necessary.

We know our maths curriculum is effective when we see:

- Children are fluent in the fundamentals of mathematics with a conceptual understanding
- Children can recall and apply knowledge rapidly and accurately
- Children have the skills to solve problems by applying their mathematics to a variety of situations with increasing sophistication
- Children who are able to reason mathematically using mathematical language.
- Children show confidence and believe they can learn about a new maths area and apply the knowledge and skills they already have.
- Through discussion and feedback, children talk enthusiastically about their maths lessons and speak about how they love learning about maths. They can articulate the context in which maths is being taught and relate this to real life purposes.