



St Michael's CE Primary School, Sandhurst

Subject Vision Document: Maths

Vision (Intent)

When teaching mathematics at St Michael's CE Primary School we intend to provide a curriculum which caters for the needs of all pupils. Maths is a journey and long-term goal, achieved through exploration, clarification, practice 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 over time. The deep and deepest levels are what we are aiming for by teaching maths using the Mastery approach.

We want pupils to become fluent in the fundamentals of mathematics, to be able to reason and to solve problems. Children will learn more by taking small, sequenced steps within each unit and this will enable them to remember more as they will develop a deep understanding of mathematical concepts. Our curriculum embraces these national curriculum aims, and provides guidance to help pupils to become:

Visualisers – we use 'concrete, pictorial and abstract' approach to help pupils understand mathematics and to make connections between different representations.

Describers – we place great emphasis on mathematical language and questioning so pupils can discuss the mathematics they are doing and so support them to take ideas further.

Experimenters – as well as being fluent mathematicians, we want pupils to love and learn more about mathematics.

Curriculum (Implementation)

Maths is a core subject in the National Curriculum. St Michael's CE Primary School follows the White Rose Education maths plans as the basis for implementing the statutory requirements of the program of study for mathematics.

Curriculum Structure

The curriculum is structured to provide children with the opportunity to learn and retain fluency skills across all areas of maths. Pupils receive high quality teaching which provides opportunities to apply these fluency skills to solve problems and reason. Mathematical vocabulary is explicitly taught with a clear progression across the school. Concepts are modelled in small steps through familiar pictorial representations and concrete resources. Focused activities, ensure varied and frequent opportunities for exposure to rich mathematical vocabulary. Teachers plan additional retrieval practice activities at the start of lesson to allow children to access prior learning from their working and long-term memory.

White Rose Education maths hub provides a robust planning framework with clear progression across the year groups. Lessons are adapted to suit each individual cohort with targeted questioning and scaffolding built in to ensure a specific outcome. Understanding of mathematical concepts and procedures is achieved in small steps and underpinned by secure fluency skills and the mastery approach. Learning is deepened by regular and targeted questioning with children required to answer in full sentences using correct mathematical vocabulary.

Across EYFS, KS1 and KS2, concepts are revisited regularly to ensure deep and secure understanding. Concrete and pictorial representations are used before and alongside abstract and formal representation to ensure children understand and can expose the structure of the concept.

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Additional opportunities to apply mastered objectives at a deeper level and across a variety of contexts are provided for all children through a wide variety of resources e.g. NCETM, White Rose Education Maths Hub and Deep Dive Maths.

Lesson Delivery (Pedagogy)

We have an expectation that all children can succeed in maths, which we achieve through high-quality teaching and strong subject knowledge. Where appropriate, split inputs are delivered with specific focuses and outcomes for target groups. Children are taught through a mastery approach - ensuring high engagement and motivation and a secure and sustainable understanding of mathematical concepts.

We ensure children are fluent in mathematical number facts by rehearsing these systematically at school and at home. Children are engaged and motivated by our Times Table Rock Stars platform which simultaneously provides opportunities for fluency and quick recall whilst being fun and inclusive.

Children who master a concept quickly are expected to deepen their understanding by applying it to solve problems embedded in mathematical investigations or more complex contexts. Children who may struggle to master an objective are supported through same-day intervention, retrieval practice, home resources and targeted support in daily lessons.

Assessment

Children's maths is assessed in a number of ways to identify specific areas of need:

- Assessment against National Curriculum objectives is achieved through discussion, observation and questioning during maths lessons, retrieval practice sessions and pre-teaching interventions.
- Maths assessment against year group objectives is recorded on our PITA Assessment Tracker.
- Termly maths assessment tests in Year 1 – Year 6 allow teachers to assess their understanding and identify areas for further development via question level analysis (NFER/SATs Papers).
- Year 2 and Year 6 teachers attend moderation events to standardise their end of key stage judgements and to share good practice.
- Targets for pupils' maths are shared with parents in their child's Autumn and Spring PITA report and discussed during Parents' Evenings and in the Annual End of Year Reports to parents.

Outcomes (Impact – how do we measure and evaluate)

The Subject leader regularly monitors the standards in maths in a number of ways including:

- Termly data analysis
- Children's work
- Pupil conferencing
- Teacher planning
- Lesson observations and learning walks
- Maths Wall displays

Standards in Maths are monitored in variety of ways in addition to the above. Our bespoke assessment system allows us to analyse performance: PITA (Prediction in Time Assessment) data is used to look at standards in each year group, assess the attainment and progress of whole classes and key groups such as girls and boys, children in receipt of PPG, SEND and Prior Attainment groups. Work and

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planning scrutiny and pupil conferencing also allow us to gauge attainment, engagement and progress in each class and for individual children.

Curriculum Enhancement

The Maths Curriculum is further enhanced by providing regular opportunities for outside competitions and events such as: Sandhurst School Maths Olympics, Eagle House, Luckley House and Wellington College Maths Challenges. Enrichment days also provide a challenging and fun day for pupils to apply their Maths skills to solve problems. Times Table Rock Stars is an excellent supplement to our curriculum and the children enjoy termly Battle of the Bands competitions against different classes and local and national schools.

Partnerships

- The Keys Academy Trust
- Sandhurst School
- Wellington College
- Maths Hub
- Times Tables Rock Stars

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