



English Martyrs Catholic Primary School



Mathematics

Intent

We want children at English Martyrs to be confident mathematicians who aren't afraid to take risks. Our aim is to ensure children make rich connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasing sophisticated problems.

We want to develop **curious** mathematicians who pose questions and search for effective and efficient ways to solve calculations, looking for ways that maths is used in everyday life.

Engagement of maths is essential to encourage children to talk about their mathematical thinking to ensure they use deep thinking skills. We want them to play a full and active part in the lesson, self-evaluating and striving to develop their own reasoning of maths.

We want the children to be **aspirational** mathematicians where they are fluent in maths, use their mathematical thinking to reason with number and apply their skills to solve problems in different subjects.

Implementation

We teach and explore Maths through the mastery approach.

The mastery approach at English Martyrs helps children develop both their fluency and problem solving and reasoning skills which are the National curriculum three aims.

- 1) Fluency (accurately and rapidly recall and apply knowledge)
- 2) Reasoning (explain their mathematical thinking)
- 3) Problem Solving (apply their knowledge to solve problems in different contexts)

Our primary scheme in school is Power Maths. This is supplemented with work from White Rose where children need further consolidation of key skills along with resources from NCETM to develop children's deeper reasoning skills.

Mixed ability grouping

Pupils work in mixed ability groupings. There are good role models around the classroom and pupils are encouraged to talk about their maths to gain a deeper understanding of the mathematical concepts. There is whole class participation and

the class are taught together. The pace of a lesson happens quickly where children learn and apply a new skill in different context. They are able to apply new knowledge in a variety of ways which deepens their understanding. There is independent practice time where pupils can apply their new knowledge in multiple ways.

Talk for maths

Children are able to discuss their maths within the lesson with each other and the teacher. Lessons are structured so children can work independently, alongside peers and in pairs or in small groups. This enables pupils to recognise relationships and make connections in mathematics. Pupils are encouraged to talk about maths in full sentences using mathematical terminology and explanations.

Practical resources

Pupils are shown and encouraged to use practical resources "manipulatives". Accessing maths using practical resources deepens the child's understanding of maths.

Immediate and verbal feedback

Using "Live Marking" teachers are able to give immediate and verbal feedback to pupils to discuss misconceptions at the time of teaching. Pupils are able to self-mark and discuss their work with their teacher or a peer which enables them to solve their own misunderstandings and errors.

Additional support

Giving children who need it, additional support, to help them catch up with their peers.

Growth mindset in maths

We encourage our children to have a growth mindset in maths - to not say "I can't do this," but "I can't do this yet."

Pupils with a growth mindset:-

- Believe that talents can be developed and great abilities can be built over time
- View mistakes as an opportunity to develop
- Are resilient
- Believe that effort creates success
- Think about how they learn

Curriculum Impact

Immediate feedback supports our children and helps to alleviate misconceptions early. On occasion and where appropriate, pupils should have the opportunity to self and peer assess their work.

Assessment and recording

We assess pupil's work in maths by making formative assessments from the probing questions put to children. Teachers observe and scrutinise work of the children in "Live Marking" at the time of teaching. Summative assessments are completed termly using a mixture of White Rose Assessments and teacher assessment to check that pupils are on track to achieve ARE. Children falling behind are given extra intervention.

There are no official grade boundaries for the White Rose Assessments. However, in line with the KS2 SATs, the following is a guideline: A consistent score of approximately 55% (28/50) would indicate 'Expected' and 86% (43/50) would indicate 'Greater Depth'. These tests should be used to inform teacher assessment. At the end of each term, all teachers attend a Pupil Progress meeting to share data and to discuss pupils who are not on track to achieve ARE.

Interventions are discussed in these meetings to ensure children catch up with their peers. These children are scrutinised at the next Pupil Progress meeting and their needs reassessed.

The subject lead reviews the curriculum through work trawls, learning walks, lesson drop-ins and pupil interviews to determine knowledge acquisition and development of working mathematical skills.