



Maths



Intent

We strongly believe that there is no such thing as a 'maths person'. Our curriculum has been carefully structured to enable pupils to be fluent mathematicians with the ability to reason and problem solve mathematically with confidence. We encourage our pupils to be aspirational, develop resilience and to persevere in the face of a challenge. We want our pupils to be secure at every step, armed with the mathematical skills and knowledge required to achieve in the next stage in their learning. Everyone can succeed and find joy in maths.

Coverage

How do you know the National Curriculum is covered?

A **Maths National Curriculum Coverage Map** matrix maps the objectives of the National Curriculum and cross-references them to the White Rose Curriculum.

Progression

How do you plan for progression in Maths?

Our curriculum is carefully designed to follow a logical sequence of small steps that encourage pupils to make links between what they have been taught and what their next steps are, ensuring that they have securely understood each objective before moving on. The majority of our children are expected to move through the curriculum at broadly the same pace. Those who require additional support have learning carefully scaffolded and modelled for them and are offered same day support to ensure that they keep up rather than needing to catch up. All pupils have the opportunity to 'go deeper' in their learning if they have grasped a concept quickly. We encourage breadth and depth of understanding rather than racing through content. We use the DfE Ready to Progress criteria to ensure that pupils have mastered the skills that they need to progress to the next stage in their learning.

Additionally, we recognise the importance of learning key mathematical facts. Daily times tables practice (including practice at home on TTRockstars) in KS2 and daily fluency sessions (NCETM Mastering Number in Reception and KS1 and more recently Y3) We encourage our pupils to think flexibly about numbers and to use their grasp of key facts to solve problems.

We have a consistent approach to the use of written calculation methods (see White Rose Calculation Policy) which is designed to give children accurate and efficient methods with which to tackle more complex problems. Children deepen their understanding of maths through problem solving and applying their knowledge to real life situations.



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How is Maths taught?

Using a mastery approach to the teaching of mathematics allows all children to build the best possible foundations for further maths learning, no matter what their starting point. We use White Rose materials, alongside other high-quality resources, to deepen teachers' understanding of how to structure this approach and to ensure consistency.

What do we learn about in Maths?

EYFS

In this phase, pupils are given varied and rich opportunities to develop firm mathematical foundations in a way that is fun, engaging and appropriate for their age. Using a mixture of White Rose Maths and NCETM resources, Pupils experience six key areas of mathematical learning: **Cardinality and Counting, Comparison, Composition, Pattern, Shape and Space and Measures.**

Key Stage 1

In this phase, pupils build on their experiences and knowledge from Early Years and begin to apply these to more complex and challenging problems, often using concrete resources and with opportunities to practise their new skill in provision areas in Year 1. Pupils are expected to reason mathematically and to use mathematical language to explain their ideas. Pupils are taught using a combination of the NCETM Mastering Number fluency programme and White Rose resources to develop pupils' understanding of number and to enable them to think flexibly and apply their knowledge when reasoning and problem solving. At this stage pupils are introduced to a number of new concepts including, fractions, multiplication and division. Pupils learn about measurement (including money and time), geometry and statistics.

Key Stage 2

Pupils in key stage 2 further develop their understanding of number and are now working with larger numbers (up to 10,000,000) as well as decimals with up to 3 decimal places. Pupils learn to calculate mentally as well as using formal written methods and to choose the most efficient method for the problem they are solving. Using White Rose as well as NCETM and other high-quality materials, pupils are given rich and varied opportunities to practise and develop their skills using concrete and pictorial representations alongside more abstract approaches. Pupils are expected to reason mathematically and are systematically taught mathematical vocabulary to enable them to do this with confidence.

Where will you see evidence of Maths at Holy Trinity Church of England Primary School?



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- ✓ Pupils' maths books – these exemplify high expectations of productivity and presentation
- ✓ Class displays – working walls reflect current topics and include models/structures and vocabulary to support pupils' understanding.
- ✓ Pupil voice.
- ✓ Assessment informed by a use of a variety of sources including end of unit checks, termly assessments (**White Rose**) and teacher judgement given at the end of each term, recorded on Insight.
- ✓ Subject Leader folders.

How do we assess and monitor maths?

We use a variety of methods to assess and monitor maths at Holy Trinity. Teachers may use end of unit checks (White Rose), for the purposes of diagnostic assessment, as well as checking recall in the classroom. They use questioning to help the pupils recall prior learning. Attainment within each lesson is clearly evidenced using pink highlighting of success criteria to allow pupils and teachers to see what has been understood and which pupils require extra support. We record termly Teacher Assessment and test data on Insight to monitor progress in maths and this is checked by the maths Lead who carries out monitoring tasks to ensure that the curriculum is being delivered and that there is evidence of the learning in pupils' books.

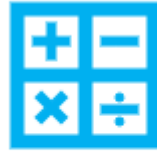
Through close monitoring, we know the effectiveness of teaching has a positive impact on learning and standards. The Maths Subject Leader has an evidence file recording monitoring activities, which can include interviews, observations, classroom discussions and conversations with groups and individuals, and work scrutiny. The Maths Subject Leader evaluates all aspects of maths learning to define next steps for improvement from their action plan.

How we support SEND

All pupils at the Federation of Holy Trinity Church of England Primary Schools receive high quality teaching. This means that a range of teaching styles and approaches are used and that appropriate learning objectives are set for all learners with a curriculum matched to their needs.

Teachers set high expectations for all pupils. They use appropriate assessment to set ambitious targets and plan challenging work for all groups, including:

- ✓ More able pupils – encouraging pupils to make deeper connections in their understanding of mathematical concepts and how these relate to each other.



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- ✓ Pupils with low prior attainment - scaffolding, supporting and adapting the curriculum where necessary. Allowing pupils to articulate their responses in a variety of ways and to use practical resources where appropriate.
- ✓ Pupils from disadvantaged backgrounds – providing rich and meaningful learning experiences and giving pupils the background knowledge they require.
- ✓ Pupils with SEND – scaffolding, supporting and adapting the curriculum where necessary. Allowing pupils to articulate their responses in a variety of ways and to use practical resources where appropriate.
- ✓ Pupils with English as an additional language (EAL) – using practical resources where possible and providing with subject specific vocabulary.

Teachers plan lessons so that pupils with SEND can study every National Curriculum subject, wherever possible, and ensure that there are no barriers to every pupil achieving.

Impact

PUPIL VOICE - through discussion and feedback, pupils talk with joy and enthusiasm about their maths lessons. They are proud of their knowledge and love to share what they have learned.

EVIDENCE IN KNOWLEDGE - pupils confidently share their knowledge and use mathematical language to explain their ideas. They have a good understanding of the key concepts that they have been taught and can apply their knowledge to solve problems and reason mathematically.

EVIDENCE IN SKILLS - pupils use correct vocabulary in maths lessons. They can choose and use efficient methods to calculate.

BREADTH AND DEPTH - teachers plan a range of rich opportunities for pupils to deepen their conceptual understanding and to apply their knowledge to complex and varied problems including open ended tasks to develop resilience and to encourage pupils to make links between the different things they have learned.

Research shows that early mathematical knowledge predicts later reading ability and general education and social progress. Conversely, children who start behind in mathematics tend to stay behind throughout their whole educational journey. We are determined to provide our pupils with every opportunity to succeed in maths to give them the tools they need for future success.