Holy Family Catholic Primary School

Maths Policy

Approved by:	Clair McFadden	**Date:**	September 2026
Last reviewed on:	September 2026		
Next review due by:	To be monitored and updated as required		

Intent

We strongly believe that all children, no matter what their starting points, can become confident, competent mathematicians. The use of ARK Maths Mastery is fundamental to ensuring children experience a range of concrete, pictoral and abstract learning to maximise their understanding of mathematics. It is essential that, through EYFS and KS1, children have a secure knowledge of number at the earliest opportunity and use all available time to make as much progress as possible in this area. Our Maths curriculum, through consistent high expectations and challenge, ensures the majority of children leave KS2 with sustained Mastery. This means children are fluent in basic concepts, can reason mathematically and are able to make links with their knowledge to solve problems in relation to National standards. It is our intent that children build on some of the school's intents in Maths specifically, working independently and collaboratively, building on prior knowledge, show resilience and peer and self-reflect.

Implementation

The use of ARK Maths Mastery and other resources allows our children to learn through a range of manipulatives on a daily basis, if needed. Children will leave KS1 with a secure understanding of number so they are able to make links between areas in KS2. Maths is taught on a daily basis; during most lessons, staff provide a fluency, and/or times tables, starter, question children related to the National Curriculum standards, stretch children through challenging, reasoning problems and offer effective, immediate, intervention to children who are struggling to understand the concept. Staff teach an effective Arithmetic lesson once a week to improve instant recall and develop understanding of calculations and arithmetic strategies. This allows children the opportunity to progress as much as possible and have every opportunity to achieve fluency and reason mathematically by the end of KS2. Children who are below age-related expectation receive afternoon interventions (especially in KS1) to help close gaps in knowledge.

Impact

Our Maths curriculum will ensure the majority of children leave KS2 with fluency and are able to apply knowledge and skills to problem solve. Children will be able to recognise relationships and make links in mathematics. It is essential every child leaves KS2 with vital life skills that are mastered and embedded. We aim for children to leave Holy Family with a joy for learning Mathematics.

What a good Maths lesson looks like*:*

- Staff talk about what school Intents the lesson links to
- 5-10 minutes 'Do Now' Maths starter
- Discussion of prior learning and their Maths journey
- A clear learning objective
- Discussion of key vocabulary to be included within the lesson
- Teacher modelling
- Use of manipulatives (if appropriate)
- Teacher talking time is limited
- AFL to take place within the lesson
- High expectations
- A clear understanding of the task
- Children are supported where needed
- Children are challenged through extension and reasoning problems
- Reflect

It is expected that Greater Depth children correctly answer Reasoning 3 questions on most days.

Expected children correctly answer Reasoning 2 questions on most days.

It is expected that Working Towards children have evidence of being supported and complete the Reasoning 1 questions on most days.

Organisation and Planning

All children receive 4 Maths lessons per week with five additional 15 minute Math Meeting slots per week that focus on fluency.

The other 4 lessons will have a fluency starter (no longer than 10 minutes) linked to fluency targets or the National curriculum. The teacher input will commence followed by the main task that links to the National Curriculum and year group standard. Children who need support receive this during the lesson. Children who are confident do not need to answer all questions on the main task – they can be moved onto the reasoning questions. The Reasoning 1 questions are pitched at the Working Towards standard, Reasoning 2 questions are pitched at the Expected standard and Reasoning 3 questions are pitched at children achieving Greater Depth. Children reflect on their own ability and choose which reasoning questions they wish to complete.

Foundation Stage

Teachers in the Foundation Stage base their teaching on the objectives outlined in the Early Years Foundation Stage (EYFS) Statutory Framework. This ensures that children develop the foundational mathematical knowledge and skills needed to progress towards the Early Learning Goals for Mathematics, under the areas of Number and Numerical Patterns.

The goals involve supporting children to develop a strong understanding of number, including counting, recognising quantities, comparing numbers and exploring number relationships. Children are also encouraged to develop their understanding of numerical patterns, including counting patterns, shape, space and measures, through practical, engaging and meaningful experiences.

Mathematical learning is developed through:

Practical activities and resources to explore counting, sorting, matching and comparing quantities.

Stories, songs and rhymes to develop number recognition, counting skills and mathematical vocabulary.

Play-based learning and role play to explore mathematical concepts in familiar, real-life contexts.

Using concrete resources and manipulatives to develop understanding of number, addition, subtraction and early calculation.

Exploring shape, space and measure through construction, puzzles, outdoor learning and everyday classroom activities.

Recognising and creating patterns to develop logical thinking and an understanding of numerical relationships.

Mathematical discussions and questioning to encourage children to explain their thinking, solve problems and use appropriate mathematical vocabulary.

Daily routines and real-life experiences to apply mathematical knowledge, such as counting the register, sharing resources, comparing sizes and recognising numbers in the environment.

Through these experiences, children develop confidence, curiosity and a positive attitude towards mathematics, establishing the strong foundational knowledge required for future learning in Key Stage 1.

Key Stage 1 and 2

We use the ARK Maths Mastery Curriculum in Key Stage 1 and Key Stage 2 to ensure that the National Curriculum for Mathematics is taught in full. We provide opportunities for children of all abilities to develop their mathematical knowledge, skills and understanding through a carefully sequenced curriculum. Opportunities for progression are planned to ensure that children build secure foundational knowledge, develop fluency, reason mathematically and solve problems. As children progress through the school, learning is revisited and built upon, with appropriate support and challenge to ensure that all pupils are supported to achieve their full potential.

Long-term plans

Our long-term plans for Mathematics are based on the ARK Maths Mastery Curriculum and provide an overview of the mathematical objectives and content to be taught within each year group. The curriculum is carefully

sequenced to ensure full coverage of the National Curriculum and to support the progressive development of mathematical knowledge and skills. Learning is built upon year by year, allowing children to revisit and consolidate prior knowledge before applying it to increasingly complex mathematical concepts.

Medium-term plans

Our medium-term planning follows the ARK Maths Mastery Curriculum and outlines the sequence of learning within each unit. This ensures appropriate coverage and progression of mathematical knowledge, skills and understanding throughout the school. Learning objectives are carefully sequenced to develop secure foundational knowledge, fluency, mathematical reasoning and problem-solving skills. Teachers use the provided planning and resources to ensure that lessons build upon prior learning and that misconceptions are identified and addressed.

Short-term plans

Daily lesson planning follows the structure and guidance provided by the ARK Maths Mastery Curriculum. Lessons are designed to develop pupils' conceptual understanding through carefully sequenced learning, mathematical discussion and the use of concrete resources, pictorial representations and abstract methods. Teachers adapt their delivery to respond to pupils' needs, ensuring that appropriate support and challenge are provided for all learners.

The Maths Leader monitors planning, teaching and learning, and the impact of the curriculum through book looks, lesson visits, pupil voice, assessment information and analysis of pupils' outcomes. This monitoring helps to identify strengths and areas for development, ensuring that the quality of mathematics teaching continues to improve across the school.

Mathematics lessons are underpinned by the principles of mastery. Children are supported to develop a deep and secure understanding of mathematical concepts before moving on to more complex learning. The curriculum places importance on developing fluency, reasoning and problem-solving skills, enabling pupils to make connections between mathematical ideas and apply their knowledge confidently in a range of contexts.

Throughout each unit of mathematics, the following key areas are developed:

1. Fluency and foundational knowledge

Children develop accuracy, efficiency and confidence when working with numbers and mathematical calculations. They are given regular opportunities to practise key skills, recall important number facts and develop efficient calculation strategies. Secure foundational knowledge enables pupils to build upon prior learning and access increasingly challenging mathematical concepts.

2. Conceptual understanding

Children develop a deep understanding of mathematical concepts rather than simply learning procedures or rules. Teachers use concrete resources, pictorial representations and abstract methods to help pupils make connections and understand why mathematical methods work. This approach supports pupils in developing secure knowledge that can be applied to different mathematical situations.

3. Mathematical reasoning

Children are encouraged to explain their mathematical thinking, justify their answers and make connections between different concepts. They use appropriate mathematical vocabulary to discuss their methods, compare strategies and explain why an answer is correct. Reasoning opportunities enable pupils to develop logical thinking and deepen their understanding of mathematics.

4. Problem-solving and application

Children apply their mathematical knowledge and skills to solve a range of problems, including those presented in unfamiliar contexts. They are encouraged to identify relevant information, select appropriate strategies, make connections and check whether their answers are reasonable. As pupils progress through the school, they develop greater independence and resilience when tackling increasingly complex problems.

5. Mathematical language and communication

Children are taught to use precise mathematical vocabulary to explain their understanding and communicate their ideas clearly. Teachers model

appropriate language and provide opportunities for pupils to discuss, compare and justify their approaches. Mathematical communication may take place through written explanations, practical demonstrations, diagrams, partner discussions and verbal responses, ensuring that all pupils, including those with SEND, have opportunities to demonstrate their understanding.

Through these key areas, our mathematics curriculum aims to develop confident, resilient and independent mathematicians who possess the knowledge, skills and understanding needed to succeed in mathematics and apply it effectively in everyday life.

Cross-curricular links

Mathematics is promoted across the wider curriculum, providing pupils with opportunities to apply and develop the knowledge and skills taught through the ARK Maths Mastery Curriculum in a range of meaningful contexts. Teachers identify opportunities to make links with other subjects, including Science, Geography, Design and Technology, Computing and PE, as well as real-life situations. For example, pupils may collect and interpret data in Science, use measures and scale in Geography, calculate costs and measurements in Design and Technology, or explore time and statistics in PE. These opportunities help children recognise the relevance of mathematics beyond the classroom and develop their confidence in applying their mathematical understanding to solve problems in different contexts.

Spiritual, Moral, Social and Cultural Development

When teaching Mathematics, we contribute to pupils' spiritual, moral, social and cultural development by providing opportunities to explore mathematical ideas, develop logical thinking and appreciate the patterns, relationships and order found in the world around them. Through the ARK Maths Mastery Curriculum, children are encouraged to persevere, reflect on their learning and develop confidence when tackling mathematical challenges. Pupils develop social skills through collaborative problem-solving, mathematical discussions and sharing different approaches. Moral development is supported by encouraging honesty, fairness and respect for others' ideas when explaining and justifying answers. Cultural development is promoted through exploring the use of mathematics in different cultures, including number systems, patterns, shapes and historical mathematical discoveries. Children also learn to

recognise the importance of mathematics in everyday life and its role in understanding and interpreting the wider world.

Inclusion

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

- More able pupils
- Pupils with low prior attainment
- Pupils from disadvantaged backgrounds
- Pupils with SEN
- Pupils with English as an additional language (EAL)

Teachers will plan lessons so that pupils with SEN and/or disabilities can study every National Curriculum subject, wherever possible, and ensure that there are no barriers to every pupil achieving.
Teachers will also take account of the needs of pupils whose first language is not English. Lessons will be planned so that teaching opportunities help pupils to develop their English, and to support pupils to take part in all subjects.
Further information can be found in our statement of equality information and objectives, and in our SEND policy and SEND toolkit.

Recording of Children's Work

Children are encouraged to record their mathematical learning using a variety of methods to demonstrate and communicate their understanding. These may include written calculations, diagrams, pictorial representations, number lines, tables, graphs, models and verbal explanations. In line with the ARK Maths Mastery approach, children are given opportunities to use concrete resources, pictorial representations and abstract methods to develop and demonstrate their understanding of mathematical concepts. Examples of children's work are retained in mathematics books and other appropriate formats to provide evidence of progression, attainment and the development of fluency, reasoning and problem-solving skills over time. Photographic evidence may also be used to capture practical mathematical activities, collaborative learning and the use of concrete resources where appropriate.

Assessment

There are many reasons why it is important that learning in Mathematics is assessed, including:

Pupils need opportunities to reflect on their learning, recognise their progress and develop confidence in their mathematical abilities.

Teachers need to know that learning has taken place, demonstrate progress and identify gaps in knowledge, misconceptions and future learning needs.

Assessment helps teachers adapt their teaching to meet pupils' needs, ensuring appropriate support and challenge for all learners.

Assessment supports pupils' motivation and learning by helping them recognise their achievements and understand their next steps.

Assessment enables the Maths Leader and senior leadership team to monitor the impact of the ARK Maths Mastery Curriculum, identify strengths and areas for development, and evaluate progress towards whole-school priorities.

Assessment provides evidence of pupils' developing fluency, mathematical reasoning, conceptual understanding and problem-solving skills.

We assess children's learning in Mathematics through ongoing formative assessment during lessons and regular summative assessment. Teachers use assessment information to identify pupils who require additional support, those who are ready for greater challenge, and areas of the curriculum that may need revisiting or further consolidation.

Formative assessment opportunities are provided through:

Live marking and feedback during lessons.

Verbal feedback to address misconceptions and move learning forward.

Questioning to assess understanding and encourage mathematical reasoning.

Observation of pupils using concrete resources and pictorial representations.

Analysis of children's written work, calculations and problem-solving activities.

Discussions that allow pupils to explain and justify their mathematical thinking.

Quizzes, retrieval activities and regular checks of fluency and recall.

Review of learning against lesson objectives to identify next steps.

Feedback and marking are in line with the school's Marking and Feedback Policy. Teachers use assessment information to inform future planning and ensure that learning builds securely on pupils' prior knowledge.

Summative Assessment

Summative assessment takes place termly through planned assessments that evaluate pupils' mathematical knowledge and understanding. Assessment outcomes are formally recorded in Sonar, which is used to analyse internal assessment data and monitor pupils' attainment and progress across year groups and key groups of learners.

Teachers use the results of these assessments alongside ongoing formative assessment and their knowledge of pupils' learning to make informed judgements about attainment and progress. This enables teachers and leaders to identify gaps in knowledge, monitor the impact of the ARK Maths Mastery Curriculum and establish priorities for improvement.

The Maths Leader and senior leadership team analyse assessment information to identify trends, evaluate the effectiveness of teaching and learning, and monitor the progress of different groups of pupils, including disadvantaged pupils and those with SEND. This information informs discussions with teachers, targeted support and appropriate interventions to address gaps in learning.

Assessment information is used to support transition between year groups, ensuring that teachers understand pupils' strengths, areas for development and any additional support or challenge required. Progress and attainment are reported to parents through the school's established reporting procedures, including the annual report.

Through a combination of formative and summative assessment, we aim to ensure that all pupils develop secure mathematical foundations and make appropriate progress in fluency, reasoning and problem-solving throughout their primary education.

Monitoring and Reviewing

Monitoring the standards of children's work and the quality of teaching and learning in Mathematics is the responsibility of the Maths Subject Leader. The role of the Maths Subject Leader includes supporting colleagues in the delivery of the ARK Maths Mastery Curriculum, keeping up to date with current developments and research in mathematics education, and providing strategic leadership and direction for the subject across the school.

The Maths Subject Leader works alongside the Senior Leadership Team (SLT) to evaluate the strengths and areas for development in Mathematics and identify priorities for improvement. Monitoring focuses on the quality of teaching, pupils' mathematical knowledge and understanding, progression across year groups, and the impact of the curriculum on pupils' attainment and progress. Findings are shared with SLT and used to inform future actions, staff development and improvements to teaching and learning.

The Maths Subject Leader undertakes regular monitoring activities to evaluate the implementation and impact of the ARK Maths Mastery Curriculum. Evidence is gathered through:

Work scrutiny: Reviewing pupils' books to evaluate curriculum coverage, progression, the development of fluency, reasoning and problem-solving, and the quality of feedback.

Data analysis: Analysing termly summative assessment data recorded in Sonar to identify trends, monitor progress and attainment, and evaluate the performance of different groups of pupils.

Review of planning: Checking curriculum coverage, the sequencing of learning and the development of mathematical knowledge in line with the ARK Maths Mastery Curriculum.

Learning walks and lesson visits: Monitoring the quality of teaching, the use of mathematical representations and resources, pupil engagement, and the provision of appropriate support and challenge.

Pupil voice: Speaking with pupils to establish their attitudes towards Mathematics, their understanding of current learning, their ability to explain mathematical concepts and their confidence in applying mathematical skills.

Staff discussions: Working with teachers to identify strengths, share effective practice and establish areas where further support or professional development may be beneficial.

The outcomes of monitoring are used to inform the Mathematics Implementation Plan, support continuous improvement and ensure that all pupils have access to a high-quality mathematics education that enables them to develop secure foundational knowledge and achieve their full potential.

Greater Depth

Children who strive for GDS in Maths should be working towards a deeper understanding of the Maths curriculum. They should be able to apply their year group expectations to a variety of problems and investigations. They

should be able to confidently represent and explain their reasoning through accurate mathematical vocabulary.

The NCTEM's definition of mastery includes having a 'sufficient depth of knowledge and understanding to reason and explain mathematical concepts and procedures and use them to solve a variety of problems' and that greater depth means to then go on and 'independently explore and investigate mathematical contexts and structures, communicate results clearly and systematically explain and generalise the mathematics.'

The NCETM also state that a pupil really understands a mathematical concept, idea or technique if they can:

- Describe it in their own words
- Represent it in a variety of ways
- Explain it to someone else
- Make up their own examples
- See connections between it and other facts
- Recognise it in new situations and contexts
- Make use of it in various ways

Developing GDS is characterised by pupils' ability to:

- Solve problems of greater complexity
- Independently explore and investigate mathematical contexts and structures, communicate results clearly and systematically explain and generalise the mathematics

Oracy in Maths

Oracy plays a crucial role in primary maths by helping students articulate their reasoning, develop mathematical vocabulary, and build confidence in problem-solving. Through activities like explaining their thinking, engaging in mathematical discussions, and justifying answers to peers, children deepen their understanding of key concepts. By verbalising their thought processes, students not only strengthen their own understanding but also learn from their

peers' perspectives, fostering a collaborative and language-rich learning environment

Artificial Intelligence (AI)

At Holy Family, we are committed to delivering a high-quality primary Mathematics education that develops pupils' confidence, fluency, reasoning and problem-solving skills. To enhance our established ARK Maths Mastery Curriculum, we use Artificial Intelligence (AI) thoughtfully and purposefully to support teaching and learning. AI tools may be used by teachers to create and adapt resources, develop mathematical challenges and provide activities that meet the varied needs of our pupils. This can help teachers provide appropriate support for pupils who need to consolidate foundational knowledge, while offering greater depth and challenge for those who are ready to extend their understanding. AI can also support teachers in identifying misconceptions, generating examples and planning opportunities for mathematical reasoning and problem-solving. This enables teachers to focus on delivering engaging, high-quality lessons that develop pupils' conceptual understanding and independence. All AI-generated content is reviewed by teachers to ensure mathematical accuracy, age appropriateness and alignment with the ARK Maths Mastery Curriculum. The use of AI is guided by the school's policies on online safety, data protection and the responsible use of technology. AI is used to complement, rather than replace, high-quality teaching and professional judgement, ensuring that pupils continue to develop secure mathematical foundations and the skills needed to apply mathematics confidently in an ever-changing world.

Arrangements for review

Policies are regularly updated/reviewed by staff and governors to ensure that all aspects of the Maths policy aims are being met and that the standards of Maths are continuing to improve. This policy will be reviewed again annually.