

Holy Family Catholic Primary School

Math Policy



We live, love and learn together in the light of God by...

praying together

learning together

playing together

and

respecting each other

Approved by:

Linda Mockler

Date: 19th March 2026

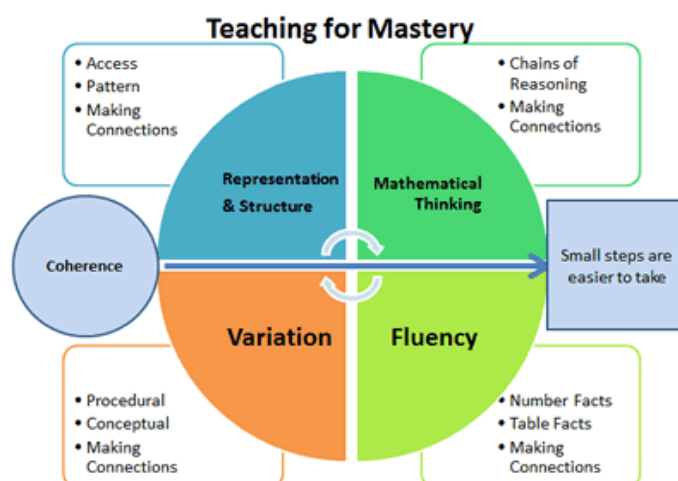
Next review due by:

March 2028

At Holy Family we are a White Rose school: a scheme that follows the Teaching for Mastery Programme and is fully aligned with the 2014 national curriculum for maths. Through using White Rose Maths we help the children to develop their conceptual understanding of mathematics by using concrete objects, pictorial representations and abstract thinking.

What is teaching for mastery?

Mastering maths means pupils of all ages acquire a deep, long-term, secure and adaptable understanding of the subject. The phrase 'teaching for mastery' describes the elements of classroom practice and school organisation that combine to give pupils the best chances of mastering maths. Achieving mastery means acquiring a solid enough understanding of the maths that's been taught to enable pupils to move on to more advanced material.



FLUENCY INVOLVES:

- Quick recall of facts and procedures.
- The flexibility and fluidity to move between different contexts and representations of mathematics.
- The ability to recognise relationships and make connections in mathematics.

REPRESENTATION & STRUCTURE

Mathematical structures are the key patterns and generalisations that underpin sets of numbers - they are the laws and relationships that we want children to spot. Using different representations can help children to 'see' these laws and relationships.

VARIATION

Procedural variation - This is a deliberate change in the type of examples used and questions set, to draw attention to certain features.

Conceptual variation - When a concept is presented in different ways, to show

what a concept is, in all of its different forms.

MATHEMATICAL THINKING INVOLVES:

- Looking for pattern and relationships
- Logical Reasoning
- Making Connections

Coherence

As a result of teaching and learning in mathematics, our aim is that pupils will be able to meet the key aims of the National Curriculum for maths.

- In our school we aim for the children to become fluent in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- They will be able to reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language.
- They can solve problems by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.
- Teachers reinforce an expectation that all pupils are capable of achieving high standards in mathematics.
- The large majority of pupils progress through the curriculum content at the same pace.
- Differentiation is achieved by emphasising deep knowledge and through individual support and intervention.

- Teaching is underpinned by methodical curriculum design and supported by carefully crafted lessons and resources to foster deep conceptual and procedural knowledge.
- Practice and consolidation play a central role. Carefully designed variation within this builds fluency and understanding of underlying mathematical concepts.
- Teachers use precise questioning in class to test conceptual and procedural knowledge and assess pupils regularly to identify those requiring intervention so that all pupils keep up.

Mathematics Curriculum

The Foundation Stage

We teach mathematics in our Foundation Stage through play and activities. We relate the mathematical aspects of the children's work to the objectives set out in the Early Years Foundation Stage Curriculum, which underpins the curriculum planning for children from birth to five. We assess and measure each child's progress against the EYFS Profile. The children will develop a deep understanding of the numbers to 10, the relationships between them and the patterns within those numbers. They will have frequent and varied opportunities to build and apply this understanding - such as using manipulatives, including small pebbles and tens frames for organising counting. The children will develop a secure base of knowledge and vocabulary from which mastery of mathematics is built. In addition, the curriculum will include rich opportunities for children to develop their spatial reasoning skills across all areas of mathematics including shape, space and measures. We give all the children ample opportunity to develop positive attitudes and interests in mathematics, look for patterns and relationships, spot connections, 'have a go', talk to adults and peers about what they notice and not be afraid to make mistakes.

Lessons

- Throughout Holy Family Catholic Primary School maths is taught daily as a discrete lesson and as part of cross-curricular themes when appropriate. We subscribe to White Rose Maths and use this scheme as our main resource to aid planning and the structuring of units.
- Mental maths strategies and retrieval are embedded into daily lessons. In addition to White Rose, staff have access to resources on, TT Rockstars, NCETM, Third Space Learning and Numbots.
- Teachers may use their professional discretion to vary the resources used in order to suit the needs of their children and keep lessons varied and engaging.
- Teachers will use the key learning content in the DfE's statutory guidance 'National curriculum in England: mathematics programmes of study', published in 2014.
- The children in EYFS and Key stage 1 take part in a programme, called 'Mastering Number' which is aimed at strengthening the understanding of number, and fluency with number facts, among children in the first three years of school. It is wholly consistent with and complementary to the Primary Teaching for Mastery Programme.

Calculation policy

As a school we believe that all children, when introduced to a key new concept, should have the opportunity to build competency in this topic by using the CPA approach (Concrete, Pictorial, and Abstract)

Concrete - students should have the opportunity to use concrete objects and manipulatives to help them understand what they are doing.

Pictorial - students should then build on this concrete approach by using pictorial representations. These representations can then be used to reason and solve problems.

Abstract - with the foundations firmly laid, students should be able to move to an abstract approach using numbers and key concepts with confidence.

Resources

The use of mathematics resources is integral to the CPA approach and thus planned into our learning and teaching. Resources such as number lines, numicon, multi-link cubes, dienes, hundred squares, shapes, etc. are located within individual classrooms. Resources within individual classes are accessible to all pupils who should be encouraged to be responsible for their use. Teachers are encouraged to use the school playgrounds as an outdoor classroom when possible, for example, when teaching length, area or perimeter.

Display

We recognise the importance of a stimulating learning environment. The school provides an environment which is rich in a wide variety of print, pictures, diagrams, charts, tables, models and images. Each classroom has a mathematical working wall with mathematical vocabulary, sentence stems and visual aids and interactive activities where appropriate.

Contribution of Maths to teaching in other curriculum areas

Mathematics is a tool for everyday life. It is a network of concepts and relationships and is used to analyse and communicate information and ideas in practical tasks and problems. By making links to other subjects at the initial planning stage we aim to provide real context in which to apply skills taught during the maths lessons.

Pupil Support

Taking a mastery approach, support and intervention is provided to pupils who are not sufficiently fluent. The National Curriculum states: 'Pupils who grasp concepts rapidly should be challenged through being offered rich and sophisticated problems before any acceleration through new content. Those who are not sufficiently fluent with earlier material should consolidate their understanding, including through additional practice, before moving on.' There is little differentiation in the content taught but the questioning and scaffolding individual pupils receive in class as they work through problems will differ, with higher attainers challenged through more demanding problems which deepen their knowledge of the same content. Pupils' difficulties and misconceptions are identified through immediate formative assessment and addressed with intervention - commonly through individual or small group support.

Teaching maths for mastery is different because it offers all pupils access to the full maths curriculum. This inclusive approach, and its emphasis on promoting multiple methods of solving a problem, builds self-confidence and resilience in pupils. Though the whole class goes through the same content at the same pace, there is still plenty of opportunity for differentiation. Taking a mastery approach, differentiation occurs in the support and intervention provided to different pupils, particularly at earlier

stages. The questioning and scaffolding individual pupils receive in class as they work through problems will differ, with higher attaining children, or those pupils who grasp concepts quickly, challenged through more demanding problems which deepen their knowledge of the same content. Those children who are not sufficiently fluent are provided additional support to consolidate their understanding before moving on. Where children make less than expected progress efforts are made to ensure relevant support is put in place to help support the child. No child will be denied a full curriculum however and concepts will be revisited throughout the year to help with long term understanding.

Organisation

All children receive a daily maths lesson, although mathematical skills run through many other areas of the curriculum.

- Each lesson focusses on one clear learning objective which all children are expected to master; extension activities enable those children who grasp the objective rapidly to extend their learning by exploring it at greater depth.
- Each lesson can include elements of: fluency, to practise skills; reasoning, to deepen understanding; and problem solving, to apply skills depending on the objective being taught and the understanding of the children.
- Teachers use the White Rose Mastery planning and resources to aid Maths teaching within school and to ensure full curriculum coverage including fluency, reasoning and problem solving opportunities are addressed within lessons. Other online resources are available via Purple Mash, TT Rock Stars and Numbots which the children have access to both at home and in school.
- Whole class teaching is adopted. We believe that all children should have the same standard of teaching and to ensure this we aim not to group children based on their ability but also accept that at times this may be necessary. We therefore aim to differentiate via outcome rather than work set.
- Every classroom has a range of practical apparatus to support children's learning, with additional resources stored centrally. We aim to review this and add to it each year.
- We promote oracy in mathematics to help pupils develop deeper understanding and reasoning skills. Through our mastery approach and use of the White Rose Maths scheme, pupils are encouraged to explain their thinking, discuss strategies, and justify answers using accurate mathematical
- language. Teachers teach key vocabulary and use sentence stems to support pupils in articulating their ideas and participating confidently in mathematical discussion.

Monitoring and Review

The monitoring of maths teaching and pupil progress is the shared responsibility of teachers, subject leader and the senior leadership team. The work of the subject leader includes supporting colleagues in the teaching of maths, keeping up to date with current developments as well as providing a strategic lead and direction for the subject. The school's governing body receive regular updates to inform them of the vision for driving forward teaching for mastery. We observe lessons, speak to children/staff, analyse books/marking and ultimately come together as a staff to critique what we are doing well and what we want to improve.

Assessment for Learning

Teachers will assess children's work in mathematics from three aspects (long-term, medium-term and short-term).

Short-term assessments are integral to every lesson. These daily assessments are closely matched to the teaching objectives and help teachers monitor how learning is progressing during the lesson. From these assessments teachers can adjust their daily plans. Written or verbal feedback is given to help guide children's progress. Children are given regular opportunities to self-assess and review their own work and they are encouraged to make judgments and reflect on their own learning.

There are three key assessment points throughout the year: Autumn term, Spring term and Summer term. Children will complete written tests where they will complete arithmetic and reasoning tests. Teachers will use this and their day to day assessments to decide on the children's end of year outcome.

We make long-term assessments towards the end of the school year, and we use these to assess progress against school and national targets. We pass this information on to the next teacher at the end of the year, so that s/he can plan for the new school year. We make the long-term assessments with the help of end-of-year tests and teacher assessments. We use the national tests for children in Year 2 and Year 6, plus NFER assessments for children in both Key Stage 2.

Parental Involvement

Maths homework is set regularly by teachers. Children are given Maths homework that helps them to practice key number fluency (i.e. times tables) and recap previous learning. Teachers meet parents and report to them verbally each term. A full written report is provided for all parents towards the end of the Summer Term. Where applicable, parent workshops will be held to share strategies and expectations for

children at all ages.

This policy will be reviewed at least every two years.

Approved by the *Governors of the Curriculum and Standards Committee*

Signed:

Date:

