

Holly Lodge Primary Academy Maths Policy



This policy outlines the teaching, organisation and management of mathematics taught and learnt at Holly Lodge Primary School. The policy is based on the expectations and aims of the 2014 Curriculum for mathematics and the Early Years 'Development Matters' EYFS document.

This ensures progression and continuity in the teaching and learning of mathematics. The policy has been drawn up by the mathematics leader, shared and discussed with all staff and has the full agreement of the Governing Body.

Purpose

'Mathematics is a creative and highly interconnected discipline that has been developed over centuries, providing the solution to some of history's most intriguing problems. It is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. A high-quality mathematics education therefore provides a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject'- DfE Mathematics Programme of Study, 2014

Aims

The 2014 National Curriculum for Mathematics aims to ensure that all pupils:

- **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;
- **Reason mathematically** by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language;
- 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.

We also aim for every child to have a positive attitude towards mathematics and to welcome challenge.

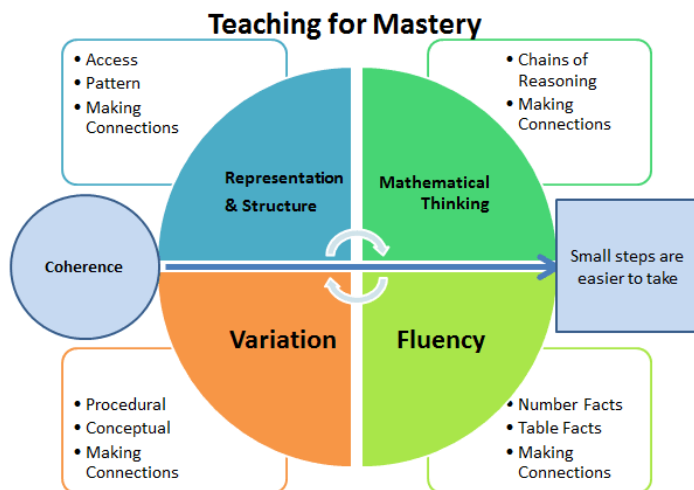
As a school, we believe that mathematics is an interconnected subject in which pupils need to be able to move fluently between representations of mathematical ideas. We aim to enable the children at Holly Lodge to make rich connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems.

At Holly Lodge, the children also apply their mathematical knowledge to science and other subjects in a cross-curricular way. Our school believes in continuous provision so the children continually revise maths concepts throughout the day, starting with Daily Dashboards through to times tables activities in the afternoon.

Curriculum

The school works to the expectations set out in the framework document for 2014 National Curriculum in England for Years 1 to 6 and the 2014 Early Years Foundation Stage Curriculum.

Teaching principles



Our teaching for mastery is underpinned by the NCETM's five big ideas for mastery:

- We continue to focus on **fluency**, developing the children's number and times table facts throughout the school.
- **Coherence** is achieved by breaking learning down into small, connected steps.
- **Representation and structure** ensure that concepts are explored through concrete, pictorial and abstract representations. The children look for patterns and learn to generalise.
- **Procedural and conceptual variation** allow the children to make connections between different areas of their mathematical learning.

Kite Assessment

At Holly Lodge, we regard assessment as an integral part of teaching and learning, using formative and summative assessment to identify the needs of our children. Parents are given termly updates showing how children are progressing against the year-end objectives.

We use the Kite Assessment System to keep track of children's progress in the following ways:

- Termly assessments against the 2014 Curriculum objectives;
- Weekly 'Maths Skills' sessions;
- Daily times tables sessions.

These tools all inform planning and therefore help to individualise teaching and learning.

Planning

Teachers plan for deep coverage and mastery of the school's curriculum through daily maths and times tables sessions. Teachers constantly assess the children's mathematical needs and adapt their teaching to support and challenge them.

Our plans follow Holly Lodge's Calculation Policy, which gives an overview of the development of addition, subtraction, multiplication and division from Year 1 to Year 6. *See also our Calculation Policy.*

We also use the NCETM Spines to ensure that the children's skills develop with coherence in mind. Teachers use this detailed information on progression and the use of representations to develop the children's understanding gradually, at each stage.

Throughout the school, the children are taught in mixed classes. Arrangements are flexible and where appropriate, children may be grouped according to their current understanding of key concepts in order to meet their mathematical needs.

Inclusion

In the 2014 Curriculum, the expectation is that the majority of pupils will move through the programmes of study at broadly the same pace. However, decisions about when to progress are based on the security of pupils' understanding and their readiness to progress to the next stage.

We believe that it is important for some children to consolidate their understanding from an earlier stage, before moving on to the next stage. These gaps in learning are identified through the Kite assessment system. Additional teaching staff and teaching assistants help us to provide effective support to enable children to access the next stage in their learning.

Intervention sessions are delivered—where needed—either in class or through additional sessions outside of the daily maths lesson. If teachers identify a gap in a child's learning, they may work with an adult to overcome this barrier to understanding; we call these sessions 'fix-its'.

Those children who grasp concepts rapidly are challenged through rich and sophisticated problems in a variety of different contexts. They will solve problems that require explanations and justifications to deepen their understanding. Children who have mastered their year group's age-related expectations may have an individualised programme with more challenging problems to tackle where needed.

Parental links

We believe that it is important to involve children in the education of their children. We keep parents informed of their child's progress primarily through reports and parents evenings. These provide an opportunity for teachers to communicate with the parents of each child on an individual basis. The Kite Assessment system provides parents and children with specific mathematic targets.

It is also possible to arrange informal meetings to discuss a particular issue. If parents wish to discuss an aspect of their child's learning with the class teacher, they are encouraged to arrange a meeting through the school office.

We also aim to keep parents informed about the curriculum and our methods for teaching calculations by publishing the relevant documents on our website and running workshops to explain how we teach maths at our school.

Home learning

Children's learning is consolidated through home learning activities in some year groups. These valued activities will vary in length and will be used a building block for learning in future lessons. We also set children longer-term learning projects, which will sometimes have a maths focus

Children in Years 1 to 6 are encouraged to practise their times table facts at home through 'Times Table Rockstars', a website to which the school has subscribed.

If a class teacher feels that a child or some children have a specific gap in their learning, they may be given a 'Learning Link' to work on with parents. This consists of an activity focused on a particular aspect of learning.

(Updated November 2019)