



Hollinswood Primary School and Nursery

Mathematics Policy



Hollinswood Primary School and Nursery Mathematics Policy

Maths Co-ordinator: Lea-Anne Firman

Overview

This policy has been reviewed in line with the requirements of the National Curriculum 2014.

Curriculum Intent

'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' (National Curriculum, 2014)

In line with the 2014 National Curriculum our offer at Hollinswood Primary School is built around ensuring that pupils have an understanding of number, shape and space and measures. Mathematicians seek out patterns, problem solve and reason by applying the skills that have been embedded since the foundation stage. Mathematics is essential to everyday life and is integrated into all aspects of the curriculum. It provides foundations for understanding of the world and the ability to reason.

At Hollinswood Primary School and Nursery, we aim to develop every child's skills, knowledge and attitudes in order for them to become **responsible, respectful, resourceful and resilient learners**.

In Maths, pupils demonstrate **resilience**, by having high expectations of themselves. They tackle problems with increasing difficulty by using their prior knowledge. All pupils are encouraged to have a go and challenge themselves through the use of chilli challenges. Pupils are supported with visual models and practical equipment. Pupils are encouraged to be **responsible** for the resources and equipment they use to support their learning by independently selecting what will support them best. They are **respectful** of equipment, other pupils and answers that are given during a session. Building on prior learning through sequential teaching allows pupils to be **resourceful** by knowing which equipment and strategies will best support them. Through self and peer assessment pupils are **responsible** for their own learning by seeing any errors they have made and how to correct them.

We aim for our pupils to:

- Enjoy mathematics, be successful and to have a positive attitude to the subject.
- Work through interesting and challenging tasks that enable them to achieve standards in line with their abilities and potential.
- 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 solution.

Teaching and Learning

Teaching

The teaching of mathematics will take the form of a daily lesson that will be in line with the age, stage of development and ability of the children being taught. Regular dedicated fluency sessions will also be planned for and delivered at appropriate levels, according to the children's needs using Fluent in Five. Daily mathematics lessons should follow the White Rose Scheme of learning which focusses on core topics to build deep understanding.

The objectives in the National Curriculum will be used to give mathematics teaching focus and direction to enable children to become numerate. Success criteria will be shared with all learners, so they know what they need to be able to understand, know and do in order to be successful in the lesson.

Learning

- Learning in Mathematics will be both subject specific and cross curricular.
- Will use ICT as an important element
- Will include an appropriate level of support and challenge for all, to ensure that children are guided, motivated and enthused by their learning.
- Include opportunities for 'experiential learning' led by 'real life' and motivating contexts.
- Will allow children to develop as independent learners, able to make decisions about their own work

Foundation Stage curriculum

In the Foundation Stage, children engage with numbers and see how to use them in the everyday environment for labelling, quantifying and calculating and exploring space, shape and measures. Pupils use a range of materials, resources and experiences that encourage the children to develop skills which will support them with their own enquiry and investigations, giving them the confidence to 'have a go'. Throughout each activity a big focus is on developing mathematical vocabulary. Children are encouraged to talk about and share their ideas about the numbers or shapes they have been working with.

During plan, do review sessions and across the routine (register/snack time) children are given the opportunity to apply their skills in number and shape for a real purpose. This ensures children access rich and enjoyable learning experiences. The learning objectives are taken from the development matters statements of the EYFS, the two areas for Mathematics are Number and numerical patterns which is supported through the White Rose Scheme. Through observations teachers identify the age and stage the children are working at and plan activities and environments which will enable the children to achieve their next steps.

Equal opportunities, inclusion and SEN

As a school we are committed to the premise that every child, irrespective of race, gender or ability is entitled to a broad and balanced curriculum and that the curriculum we teach should reflect the diversity of the society in which we live. Activities are suitably differentiated and challenging to allow all pupils (including less able, more able and gifted children, EAL) of all ages and abilities full access to the Numeracy curriculum. This is achieved using three principles:

- Setting achievable targets
- Responding to children's diverse learning needs through adaptive teaching
- Overcoming potential barriers to learning and assessment for individuals and groups of children.

When necessary, suitable children are selected through teacher assessment to take part in intervention programmes. These sessions may take place within or outside the regular planned mathematics sessions. Assessments are carried out before and after intervention to measure the effectiveness, impact and to inform next steps.

The Monitoring of Standards

On-going assessments are used to track pupil progress, and inform planning, taking into consideration prior learning needs. This will enable staff to identify suitable interventions to ensure that pupils make expected or more than expected progress.

Pupils are to complete end of topic and termly assessments from the White Rose Scheme. Evidence for assessments is found within the children's books.

Throughout a lesson, pupils are given opportunities to self and peer assess their work, using the success criteria and learning objective of the lesson. Where appropriate, the children will be involved in setting themselves targets and assessing their progress towards these.

Responsibility of the mathematics Co-ordinator

- See Subject Leader Policy

To develop and undertake, in conjunction with the Deputy Headteacher, an action plan and monitoring schedule for each academic year including: moderation of books, planning, pupil interviews and lesson observations.

Information is shared with staff and, if necessary, a report made to the Governing Body.

The Mathematics Curriculum

The National Curriculum for Mathematics 2014, and the Early Learning Goals (Number, Shape Space & Measure) provide the long term planning for mathematics taught in the school.

Years R-6 use the White Rose scheme of learning as its medium term planning. This provides a detailed, structured curriculum which is mapped out across all phases, ensuring continuity and supporting transition.

Short term planning is recorded weekly using the agreed school format. These weekly plans identify the areas of learning and lesson objectives; key vocabulary and resources; teaching input and activities; and deployment of additional adults. However these must be used flexibly to ensure planning responds to day to day assessments.

Calculation policy

A calculation policy has been devised to support the teaching and learning of calculation and ensure accurate pitch and progression across the school. The policy outlined the models and images that can be used to support the teaching and learning of calculation as well as formal written methods. This policy provides guidance to concrete, pictorial and abstract models to support the teaching and learning of mathematics in line with the White Rose Scheme of work. Children work through varied fluency, problem solving and reasoning tasks. Children are asked to 'convince me' and 'show me', drawing on knowledge and skills.

Marking

(see Marking Policy)

Policy Review

Within 3 years

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Date Approved	
Approved By	
Date for Review	