



GREEN LANES SCHOOL POLICY

FOR

Maths

*It is our vision and aim to create a learning experience in which **every** child will achieve and realise their full potential. At Green Lanes Primary School, we create independent and resilient learners for life.*

GREEN LANES SCHOOL

Date reviewed	Signed by Green Lanes governing body
Date reviewed	Signed by Headteacher
Date Reviewed	Spring 2024
Next Date for review	Spring 2025

Intent

Introduction

This policy outlines the teaching, organisation and management of mathematics at Green Lanes Primary School. It is based on the 2014 aims and expectations of the National Curriculum for Mathematics and the non-statutory Early Years Development Matters document.

This policy has been drawn up by the mathematics leaders, shared and discussed with staff and has the full approval of the Governing Body.

Purpose of study

Mathematics is a creative and highly inter-connected 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)

Aims (in line with the National Curriculum for Mathematics 2014)

Through the delivery of the mathematics curriculum at Green Lanes Primary School we aim for all 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
- reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
- 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
- make rich connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems.
- apply their mathematical knowledge to science and other subjects.
- develop a sense of enjoyment and curiosity about mathematics.

Organisation of the curriculum

At Green Lanes Primary School we follow the statutory requirements of the National Curriculum for Mathematics and the Herts Essential Maths Planning Guidance which help to ensure continuity and progression in the teaching of mathematics.

Mathematics is an interconnected subject in which pupils need to be able to move fluently between representations of mathematical ideas. The programmes of study are, by necessity, organised into apparently distinct domains, but pupils should make rich connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems.

The expectation is that the majority of our 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. Pupils who grasp concepts rapidly are challenged through being offered rich and sophisticated problems before any acceleration through new content. Those who are not sufficiently fluent with earlier material are given opportunities to consolidate their understanding, including through additional practise, before moving on.

Pupils are provided with opportunities to work mathematically in other curriculum areas where they are encouraged to apply their mathematical knowledge and skills.

Information relating to the organisation of our curriculum on a year-by-year basis is available on our school website. The school website also contains our calculation policy which ensures continuity and consistency in written and mental strategies for addition, subtraction, multiplication and division

Implementation

Teaching and Learning

At Green Lanes Primary School, Herts Essentials Mathematics Planning is used in all year groups in order to create a progressive, structured and spiralsed approach to the delivery of the programmes of study.

Short term planning of teaching sequences is completed on a regular basis. These sequences of work are viewed as a flexible working document which take into account the learning needs of pupils which may arise as lessons are taught. Learning is evaluated on a daily basis and adaptations to future planning are made where necessary.

All children participate in a daily mathematics lesson. Many of the following elements are present in these lessons:

- whole class direct teaching (I do) with clear and progressive modelling of concepts and procedures (explicit teaching)
- the consistent use of core manipulatives and representations to support ability to access learning and deepen understanding
- rehearsal of core facts and strategies
- rich mathematical talk with a focus on vocabulary acquisition, supported by adult questioning
- emphasis placed on learning through reasoning and problem solving, including contextualised or 'real-life' learning where appropriate
- challenge for all pupils through depth and breadth of experience
- scaffolding provided to allow access to whole class learning, paired, group and whole class discussions
- adults working with small groups or individuals (We do)
- edit and challenge and learning conversations to move learning on
- rich learning activities which broaden and challenge children's thinking

In Foundation Stage and Year 1 a range of mathematical activities are provided for children to access independently during continuous provision or adult directed learning. This enables them to apply their mathematical skills and take part in adult led activities in order to develop their mathematical understanding. These activities will take place both inside and outside.

Scaffolding and Intervention

Teachers set challenging tasks in line with curriculum expectations and these are based on the accurate assessment of pupils' prior knowledge, skills and understanding. Pupils are supported in meeting this challenge through the use of scaffolding (see below).

Where pupils have been identified as not working within curriculum expectations, either within a lesson or long term, interventions for mathematics should be provided. This will be in the form of pre or post teach sessions, small group before/after school tutoring or the use of an individualised programs (Ucan or Spot On) for pupils who are working significantly below curriculum expectations.

Marking and Feedback

Green Lanes Primary School uses a number of processes in order to provide children with feedback on their learning. These include edit and challenge, learning conversations, using feedback codes, post teaching and pupil consultations. Further information on these can be found in the school's Marking and Feedback policy.

Homework

Pupils will be set weekly mathematics tasks to complete at home. This work is set by the child's teacher and is designed to enable children to practise their skills at home with the support of their parent/carer. Homework will usually be an online task. All mathematics homework is set via Google Classroom or Mathletics.

Impact

Assessment, recording and reporting

Green Lanes Primary School is focused on formative assessment first and foremost. Teachers and teaching assistants assess pupil outcomes on a daily basis. These outcomes are evaluated and this informs next steps in teaching. Children are also encouraged to self-assess, recognising successes and identifying areas for improvement, including through the use of edit and challenge.

We use summative assessment (Testbase Merit, HfL Education diagnostic tests and 144 multiplication grids) to judge how well individuals and groups are securing learning as well as identifying potential barriers and next steps. All summative assessments are used diagnostically and inform future provision.

Arbor assessment tracking is used for tracking attainment and progress using the Herts for Learning Easy Tracking. Data gathered from this is used during pupil progress and attainment meetings which take place on a termly basis. These meetings involve the discussion of pupils at risk of underachievement or not working within curriculum expectations and the planning of appropriate intervention or support.

Statutory assessments take place at the following points:

- At the end of Foundation Stage where children's attainment in mathematics is measured against the Early Learning Goals.
- At the end of Year 4 where a multiplication tables check is taken. The check determines which pupils can fluently recall the multiplication tables. Results are collated by the DfE and sent home to parents.
- At the end of Key Stage 2 (Year 6) where children's attainment in mathematics is measured against age related expectations. Children are given a scaled score which demonstrates attainment below, at or beyond age related expectations. This judgement is based on the outcomes of government test papers (SATs).

Progress and attainment in mathematics is fed back to parents at parent consultations in the Autumn and Spring terms and via termly reports. Communication will be made with parents if specific learning issues have been identified. Parents of children in Foundation Stage, Year 4 and Year 6 will also receive information relating to the outcome of their child's statutory assessments in mathematics at the end of the summer term.

Monitoring and evaluation

The monitoring of the standards of children's work and the quality of learning and teaching mathematics is the shared responsibility of the senior leadership team and the subject leaders. The work of the subject leaders also involves supporting colleagues in the teaching of mathematics, being informed about current developments in the subject and providing a strategic lead and direction for the subject in the school.

Monitoring and evaluation activities may include the following:

- Pupil book study/pupil voice
- Classroom observation and feedback
- Monitoring of assessment data
- Leading staff INSET

- Updating and evaluating the action plan for mathematics
- Participating in pupil progress and attainment meetings
- Analysing data/outcomes of summative assessments
- Liaising with teaching and learning advisors

A named member of the school governing body is briefed to overview the learning and teaching of mathematics in the school.

