HOLDEN LANE PRIMARY SCHOOL

MATHEMATICS POLICY

Date: September 2023

Rationale

Mathematics helps pupils to make sense of the world, providing a precise means of communication and logical reasoning, using numbers, symbols and shapes. It is a powerful universal language, used to explain, predict and represent events and tackle problems in everyday life.

Aims

Our aim is for all pupils to enjoy mathematics and to experience success in the subject, with the ability to reason mathematically. High-quality teaching and learning experiences encourage pupils to become enthusiastic, confident and independent mathematicians.

Mathematical skills are embedded and developed consistently over time. We are committed to ensuring that pupils are able to recognise the importance of mathematics in the wider world and that they are also able to use their mathematical skills and knowledge confidently.

At Holden Lane Primary School, we aim for pupils 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 mathematical knowledge and skills in a range of contexts with increasing sophistication, including breaking down problems into a series of simpler steps and persevering to seeking solutions.

Statement of intent

Through the teaching of mathematics, our intent is to:

- Provide the opportunity for pupils to develop the practical skills and understanding of concepts, facts and operations as outlined in the National Curriculum Programme of Study for Mathematics.
- Develop children's mental arithmetic skills and their flexible mental methods ready for adult life.
- Promote and encourage the use of precise mathematical language in order to discuss, explain and express ideas to interpret results.
- Ensure that all pupils, regardless of race, gender, class, culture or disability have equal opportunity to develop their full potential in all areas of the mathematics curriculum. The contribution of all pupils is to be respected and valued.
- Support all pupils to experience success and enjoyment in mathematical experiences in order to develop a confident and positive attitude towards mathematics.
- Ensure children experience opportunities to achieve economic well-being and understand the importance of mathematics in everyday life.

Teaching and Learning of Mathematics

The delivery of the mathematics curriculum is structured around the long-term plans of White Rose Maths which ensures that there is a clear progression and sequencing of learning. White Rose develops and supports staff knowledge through its design, working on the concept of progressing from the concrete, to the pictorial, to the abstract, enabling non-specialists to be highly competent at delivering and supporting mathematics lessons. White Rose is adapted to respond to the needs of cohorts based on formative assessment and we re-focus on areas as required.

The delivery of mathematics includes a CPA (concrete, pictorial, abstract) approach to learning wherever possible, providing pupils with activities that develop the competencies of recall, fluency, reasoning and problem solving.

Basic mathematical skills are revisited during daily early morning activities and through the weekly use of Assertive Mentoring basic skills assessments in Years 1 to 6.

In the Early Years Foundation Stage, mathematics is delivered through the mathematics strand of the Early Years Foundation Stage Framework. Ongoing mathematics experiences and opportunities are planned from the objectives set out for 'Number' and 'Numerical Patterns', using White Rose Maths to support planning when appropriate, to ensure that pupils develop a secure understanding of the number system.

Assessment

The assessment of pupils' mathematics learning is continuous and informs how daily and weekly lesson plans might be amended in light of the outcomes of previous lessons. Written work is marked in-line with the school's feedback policy which is consistent across the school.

White Rose end-of-unit assessments, termly NFER mathematics assessments and past SATs papers, along with on-going formative assessments, support teachers in assessing pupils' learning in mathematics against the National Curriculum objectives. The progress and attainment of prior attainment groups is closely monitored throughout the year and pupils requiring intervention are identified at pupil progress meetings to ensure that pupils make at least expected progress between key stages.

In the Foundation Stage, daily assessments are made of the pupils' progress in mathematics. At the end of Reception, a final judgement based on on-going assessment information is made of the pupils' attainment in mathematics.

The Key Stage 1 SATs mathematics assessments, alongside on-going assessments throughout the year, supports the judgement made of the standard a pupil is working at when they leave Year 2 and to review the progress made since the Foundation Stage.

Pupils in Year 4 complete the multiplication tables check in the Summer Term to assess retention and rapid recall of multiplication facts. Pupils answering fewer than 20 out of 25 questions correctly are targeted for times tables intervention in Year 5.

At the end of Key Stage 2, Year 6 pupils complete SATS mathematics assessments. The outcomes of the SATs are reported to parents. Progress made by pupils between the end of Key Stage 1 and Key Stage 2 is also monitored.

Cross-Curricular Opportunities

The skills developed in mathematics lessons are applied to pupils' learning across other areas of the curriculum. Important and useful links to other subjects and real-life contexts are made to reinforce pupils' learning and enrich their experiences.

Equality of Opportunities

All pupils have equal access to our mathematics curriculum. Children with SEND are taught within the daily mathematics lesson. Some pupils require additional support to help them to make expected progress or to reach the expected level of attainment. Pupils who are not on-track to

achieve this are identified during half-termly pupil progress meetings and interventions are put in place to support their learning. For pupils with SEND, interventions are planned with the support of the SENDCo. During mathematics lessons, learning activities are provided to challenges higher ability pupils to further extend their knowledge and understanding.

CPD Opportunities

Throughout the year, professional development meetings are dedicated to the development of the teaching, learning and assessment of mathematics. The subject leader attends termly meetings led by the Maths Excellence Partnership which focuses on the effective delivery of mathematics based on best practice taking place locally and nationally. Teaching and support staff have the opportunity to attend CPD relevant to their key stage and role in school to continue to develop their knowledge and understanding of the teaching of mathematics.

Role of the Subject Leader

The role of the subject leader includes, but is not limited to:

- Supporting colleagues (including ECTs and support staff) through leading staff CPD, planning support and team teaching.
- Discussing pupil progress and attainment with teaching staff at pupil progress meetings.
- Monitoring and being accountable for the progress which pupils make in mathematics. This may be done through book trawls, lesson observations, learning walks and pupil interviews.
- Analysing termly internal assessment data and statutory assessment data at the end of the academic year.
- Taking responsibility for the choice, purchase and organisation of central resources for mathematics, in consultation with colleagues.
- Being familiar with current thinking concerning the teaching of Mathematics and to disseminate information to colleagues.
- Reporting to governors about the teaching and learning of mathematics across the school, including statutory assessment data.
- Leading the Mathematics Working Group (consisting of staff representatives from each key stage and the school's SENDCo) to continually review and refine the teaching and learning of mathematics across the school.