Mathematics Rationale

INTENT

Our aim is to equip children with sufficient knowledge and skills to become confident and fluent mathematicians. The intent is for mathematics to support the whole school aims by developing children's risk taking, logical thinking and enquiring minds that will enable them to think, act and work like professional mathematicians.

At Hollydale, we deliver our Mathematics curriculum to ensure it follows the key aims of the National Curriculum, carefully sequencing knowledge, concepts and procedures to build mathematical knowledge and skills systematically over time.

We aim to ensure that all pupils become fluent in the fundamentals of mathematics and in number so that pupils develop solid conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.

Children at Hollydale are taught to reason mathematically finding connections and establishing relationships whilst using mathematical language, and to solve problems by applying their mathematics with increasing sophistication. Pupils are encouraged to persevere in seeking solutions and learning from their mistakes.

We want our pupils to leave primary school with a solid foundation of strategies that they can build upon.

IMPLEMENTATION

We follow the White Rose Maths Hub planning from YR to Y6, but integrate this with other resources such as NRICH and NCETM materials. Lessons typically begin with counting, a reasoning question and a mental oral starter, followed by a range of fluency questions and reasoning/problem solving tasks. We encourage discussion and collaborative learning through open ended investigation and maths games.

We believe that all children have the potential to succeed and the lessons are adapted to challenge all learners. Our concrete-pictorial-abstract approach, with lessons broken down into smaller steps, support children's understanding of mathematical concepts learnt and their application to everyday life situations.

Teachers plan and adapt lessons based on their own professional judgement, daily formative assessment and feedback from pupils, for example to determine how long to spend on a particular objective.

The maths curriculum, provides sufficient opportunities for planned revisits of previously learned knowledge, concepts and procedures; this is to ensure that, once learned, mathematical knowledge becomes deeply embedded in pupils' memories.

Feedback is provided to pupils verbally, through teacher marking, peer marking and self-marking. This informs future planning.

Maths is included in other subject areas where appropriate exposing children to mathematical thinking and concepts across the curriculum.

Home learning and deliberate practise of key number facts is encouraged across school through participation in the Sumdog and Time Tables Rock Stars.

How is mathematics assessed?

Each unit of work begins by ascertaining the children's prior knowledge and any connected knowledge held in their long-term memory. Any misconceptions that arise throughout the unit are identified and address appropriately.

To further support ongoing formative assessment, teachers review pupils' contributions in lessons, work in their books and attainment in end of unit assessments. These are supported by end of term summative assessments.

IMPACT

At Hollydale School we are continually assessing our children recording their progress. We see assessment as an integral part of the teaching process and endeavour to make our assessment purposeful, allowing us to match the correct level of work to the needs of the children, thus benefiting the children and ensuring progress.

The impact of a mastery approach to the teaching and learning of maths is increasing enjoyment, resilience, understanding and attainment in maths for all children. Learners know more, remember more and are able to do more mathematics because the curriculum has developed their ability to take new ideas or relationships and incorporate them into their current understanding and see how they connect with ideas and relationships they have encountered previously.

We measure impact every day through formative assessment that informs next steps and future planning. Teachers mark work each day and plan accordingly, ensuring that 'no child falls behind'.

Summative, termly maths assessments evidence how children have independently applied the maths' skills taught. Teachers input this assessment on Target Tracker and monitor progress towards National Curriculum objectives as well as the progress of targeted intervention groups.

Moderation meetings are held and throughout the year, the Senior Leadership Team carry out learning walks, observations, book looks, planning sessions and pupil progress meetings so that we can monitor the quality of teaching throughout the school. The outcome of these reviews is reflected in actions set out in teachers' appraisals, the Maths Action Plan and as whole school targets shared with staff.