Haresfield C of E Primary School

Trusting in God, together we live, learn and grow.

MATHS POLICY

Rationale

Mathematics equips pupils with a uniquely powerful set of tools to understand and change the world. These tools include logical reasoning, problem-solving skills and the ability to think in abstract ways. Mathematics is important in everyday life, future employment, science and technology, medicine, the economy and the environment.

"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 for Maths, 2014

Aims

We aim that all pupils:

- Become fluent in the fundamentals of mathematics so that they develop a conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- Can solve problems by applying their mathematics to a variety of problems with increasing sophistication, including in unfamiliar contexts and to model real-life scenarios.
- Can reason mathematically by following a line of enquiry and develop and present a justification, argument or proof using mathematical language.
- Give pupils opportunities to talk about and explain their mathematical thinking.

We believe children can succeed in Maths lessons and develop a growth mindsight approach to Maths. Children instead of believing they can't do it or learn Maths, children should feel that they ***can't do it yet.*** Children will believe with further support and practise they will all be able to achieve and understand their mathematical learning.

Delivering the Curriculum

The teaching of maths at Haresfield is based on the National Curriculum for Maths.

The 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.'

In Years 1-6 we have developed our curriculum to allow teachers and learners to achieve a secure and deep understanding of each mathematical concept. It is designed to give us the opportunity to address key points individually, ensure that children have a secure and deep understanding of those points, before offering the opportunity to 'go deeper' within them. In Early Years and where appropriate in Year 1 the principles of the EYFS Framework will be followed, and there will be the opportunity to explore their mathematical thinking and develop their understanding of Mathematical concepts through play.

Teaching methods and approaches

The teaching of maths at Haresfield provides opportunities for:

- Group work
- Paired work
- Whole class teaching
- Individual work

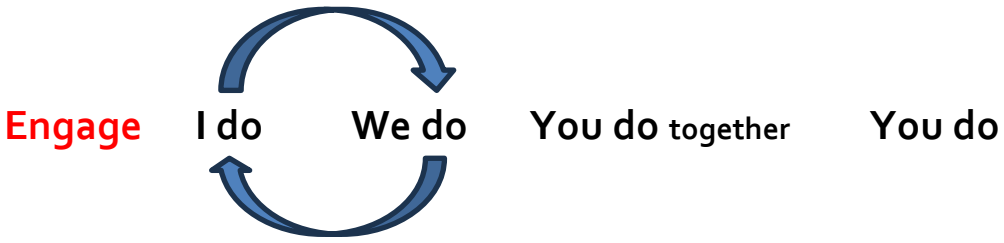
During maths lessons pupils may be engaged in:

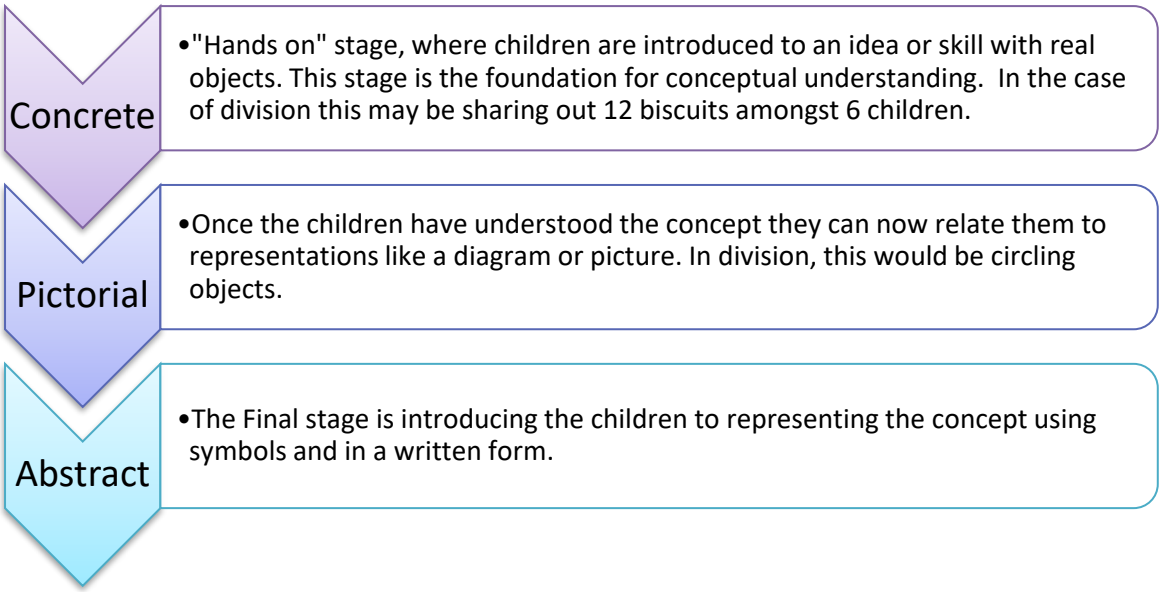
- The development of mental strategies,
- Written methods,
- Practical work,
- Investigational work,
- Problem- solving,
- Mathematical discussion and use of talk partners,
- Consolidation of basic skills and routines,
- Independent work undertaken in their Maths books.
- Most children will independently work through a sequence of work following and agreed approach of Do it (fluency), Twist it (reasoning) and Solve it (problem solving).

The vast majority of children will work alongside the other children in their year group on the same concepts and work in each lesson. Alongside their teacher they will work through their learning in a manner which tests their fluency, reasoning and problem solving skills.

In most lessons you will see examples of teaching using a concrete, pictorial, abstract (CPA) approach. Lessons may feature aspects from each element of CPA or just one they are also able to be taught in a manner that does not directly move from concrete to pictorial to abstract and a more fluid or cyclical approach may be incorporated.

Lesson structure





Planning

Planning is undertaken at three levels:

Long term planning is based on the yearly teaching programmes set out in the National Curriculum.

M**edium term** planning is carried out half-termly. Each teacher looks at the topics being taught throughout the term and break it up in manageable small steps taken from the White Rose Maths website.

Short term planning is carried out on a weekly basis. Each small step is worked on and where necessary broken up into smaller steps to ensure the best outcomes for children. Each teacher can also create planning PowerPoints for each individual lesson to help structure the children's learning and provide opportunities to meet the aims of the national curriculum. Teachers will not just download the PowerPoints from the WRH but adapt them to use for the particular cohort.

The medium and short term planning is collected and monitored by the maths co-ordinator and head teacher.

Maths is taught as a separate subject but every effort is made to link maths with other areas of the curriculum through the creative curriculum and topics. We try to identify the mathematical possibilities across the curriculum at the planning stage. We draw the children's attention to the link between maths and other curricular work so that children can see that maths is not an isolated subject. We also endeavour to provide real life activities in the woodland classroom environment to bring maths alive for the children.

Assessment

At Haresfield we have developed of assessing children through the cycle of planning and marking involving the work being done by children with their teacher in class. Each half term children will undertake a short piece of assessment work to look at their understanding of number and how fluent they are with their number facts. This will look different in EYFS and for many at the beginning of Year 1 when teaching of Mathematics is more play orientated.

Using long term and medium term plans opportunities will be identified by class teachers for children to undertake an end of unit assessment to check their understanding in each of the key areas of Mathematics being covered within their individual year groups.

We also carry out NTS standardised assessments 3 times per year. Assessment data being collected by termly and end of unit assessment by each teacher will be shared with Maths subject leader and Headteacher in order to monitor progress and attainment.

Adaptation, differentiation and Support

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 should always be based on the security of pupils' understanding and their readiness to progress to the next stage. Pupils who grasp concepts rapidly should be challenged through being offered rich and sophisticated problems before any acceleration through new content. Those who are not sufficiently fluent with earlier material should consolidate their understanding, including through additional practice, before moving on. (National curriculum 2014)

At Haresfield we follow a mastery curriculum and in line with the National Curriculum document ensure that most children move at broadly the same pace. However, there can still be a wide range of attainment in the class. We aim to:

- Establish a classroom climate where all pupils feel that they can contribute, and which secures their motivation and concentration.
- Develop a growth mind-set culture where children believe they can do it.
- Adopt teaching and organisational strategies to keep all pupils suitably challenged.
- Provide appropriate support, aids or interventions to give particular pupils access to the planned programme and to keep any who might fall behind in step with the rest of their class.

Examples of strategies include:

- Questioning – targeting individuals or groups, open questions, encouraging pupils to explain strategies and methods to each other
- Providing resources to support or extend pupils
- Open-ended tasks – investigations, problems. Low threshold / high ceiling tasks

Yeti Maths

At Haresfield we believe that the learning of mathematical facts and skills is a key point in a child's development and understanding of Maths. Each day children will take part in a short fluency lesson called Yeti Maths. Every day has a planned objective such as counting, adding, times tables etc. based on objectives for each year group. Teacher's will also use these sessions to address misconceptions and reinforce learning from previous year groups or from topics covered earlier in the year.

Homework

Children will regularly be given homework to complete at home. This can be in several forms such as taking home Maths games to play with family members, learning times tables or number facts using TTRS. We also currently set regular work using the Manga High website for children to complete at home based on their current learning or needs in class.

Equal Opportunities

We follow the principles of equal opportunities when teaching maths at Haresfield.

Signed : R. Bacon Date: September 2025

Review Date: Autumn 2027