



Houghton School

Numeracy Policy

Updated: September 2022

Review Date: July 2023

Aims

At Houghton School we believe that every child can achieve in maths and offering our children a rich and progressive numeracy curriculum is at the forefront of everything we do. Numeracy is a process of enquiry, reasoning and problem solving – all valuable skills that help children to make sense of the world around them. We use a range of learning strategies to allow all children to become confident mathematicians and encourage a high-quality mathematical dialogue in the classroom. We want our children to see the importance and purpose numeracy has in their everyday lives.

Delivering the Numeracy Curriculum

The “Mathematics Programmes of Study” National Curriculum in England 2014 describes in detail what pupils must learn in each year group. At Houghton all of our children work accessing the curriculum at a lower year group than their chronological age due to their increasingly complex needs. This is taken into account when planning to ensure we meet the specific needs of children, with the expectation that pupils make the expected progress during the year and that gaps in their learning are also reduced. This ensures continuity and progression and high expectations for attainment in numeracy.

Our curriculum is mapped by the White Rose Scheme of work. We focus on breaking down objectives into smaller more manageable steps; building coherence and fluency with each step. For each objective the children focus on a progression from concrete resources to pictorial representations and finally into the numerical abstract.

Numeracy Mastery places emphasis on the cumulative mastery of essential knowledge and skills in numeracy. It embeds a deeper understanding of maths by utilising a concrete, pictorial, abstract approach so that pupils understand what they are doing rather than just learning to repeat routines without grasping what is happening.

In Badgers and specialist classes activities are practical and multi-sensory to provide opportunities to explore, enjoy, practise and consolidate skills and talk about their developing mathematical understanding.

Planning

Planning is undertaken at three levels:

Long term planning is based on the White Rose Maths Yearly Overviews (Schemes of Learning) which set out the order in which different blocks of learning (aspects) within each term for each year group should be taught. It gives guidance as to how long each aspect should be worked on also.

Medium term planning identifies the key objectives within the small steps for each block of learning (aspect) that we teach to each year group, but offers the opportunity to track backwards and forwards depending on the abilities of individuals and groups of children in each class.

Short term planning is carried out weekly. These plans include learning objectives for the main teaching activity for differentiated groups, activities for the mental/oral starter, whole class, group work, plenary and resources needed.

Cross-Curricular Links

Numeracy is taught as a stand-alone lesson but is also fully integrated across the curriculum as much as possible, enabling links to be made within other subjects so that children can develop and apply their mathematical skills. "Functional" (practical/applied) numeracy will be used wherever possible as this approach best suits our children's' needs.

Organisation

In Key Stage 1 (Class 1 Spring and Summer Term) and Classes 2&3 numeracy lessons are held four times a week and last for approximately 45 minutes each.

In Key Stage 2, the lessons are held four times a week and last for approximately 50 minutes.

In Badgers and (Class 1 Autumn Term) the organisation is a focused ten-minute whole class session per day, children are also taught numeracy through adult directed teaching which follows a clear plan which is differentiated and has some links to the White Rose Maths scheme, together with exciting exploration within the learning environment. There are planned daily opportunities for the children to join in singing and signing whilst using number nursery rhyme sacks.

Specialised classes within school who have mixed year groups follow a more individualised and holistic approach to teaching numeracy incorporating the whole school curriculum following White Rose Maths schemes of Learning.

A Typical Lesson

A typical lesson in years 1-6 will be planned to meet the needs of the pupils in that class. However, lessons have the following components:

- *Oral and mental work across the range of numeracy.*

This involves work to rehearse, sharpen and develop mental and oral skills, learning and rehearsing number facts.

- *Main teaching activity*

This is teacher-led. Sometimes the focus for this session is new learning, at other times children may be practising to master the application of a concept they have learned earlier.

- *Group activity*

The work is linked to the main teaching activity but is differentiated and offers appropriate challenge.

- *Plenary*

This will involve work to sort out misconceptions, identify progress, and to summarise key facts and ideas.

Within lessons and over sequences of lessons teachers plan a coherent teaching and learning programme based on the model:

Revisit ➡ Review ➡ Teach ➡ Practise ➡ Apply

At times there may be opportunities to develop skills and understanding of numeracy through additional activities, some of which may take place at home.

Teachers plan learning that is differentiated to meet the needs of all pupils. When scrutinising work in maths books senior staff expect to see work from any one lesson on a similar theme, differentiated for high, middle and low attaining pupils.

Assessment and Record-Keeping

At Houghton we are continually assessing our children and 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 each pupil, thus benefitting the pupil and ensuring progress. Assessment is carried out on three levels:

Short term assessments are an informal part of every lesson and are closely matched to the teaching objectives. These are recorded by the teacher and by the adult leading the group work on the weekly planning sheets and on marking slips. They are for the teacher's immediate attention and will affect what is planned for the next lesson.

Medium term assessments are carried out at the end of each WRM Block (aspect) Each child is working towards individual targets during target time and their progress is recorded on iASEND.

Long term assessments are carried out towards the end of the school year. The purpose of these assessments is to review and record the progress the pupils have made in relation to age related expectations and iASEND profiles.

Reporting

All parents and carers receive an annual written report on which there is a summary of their child's effort and progress in numeracy over the year.

At the end of each term pupil progress in the iASEND profiles is reported to Governors.

In addition, the individual pupil targets set as part of the child's Statement of Educational Needs or Education and Health Care Plan meeting are discussed with parents and carers at the Annual Review meeting and at the Parent's Evenings.

Resources

Resources for the delivery of the maths curriculum are stored both centrally and in classrooms. All classes use Numicon. Numicon is a multi-sensory approach to maths, built on a proven pedagogy that raises achievement across all numeracy ability levels. Numicon exemplifies the principles of maths mastery with concrete apparatus and imagery to embed a deep understanding. It also embodies the aims of the 2014 National Curriculum by developing conversation, reasoning and problem-solving. Additional equipment and topic-specific items are stored centrally in the Numeracy Cupboards. Spending is determined by the priorities of the teaching staff and those set by the School Development Plan. The teaching staff approves spending and members of the SLT monitor it. Haughton School uses a variety of published and on-line materials to facilitate the teaching of numeracy but recognises the need for the teaching of maths to be "scheme assisted, not scheme driven". Many materials are produced and adapted by individual teachers. Materials are constantly updated, as new and relevant items become available.

Information and Communication Technology

ICT is used in various ways to support and motivate children's learning. Each classroom has a PC connected to an interactive whiteboard. Staff are encouraged to use ICT to enhance teaching and learning in numeracy where appropriate. One laptop/iPad per two children is available to use in each class. The school subscribes to "Busy Things, Timestable Rockstars, Numbots, PurpleMash and White Rose Maths which facilitates further practice of key skills, accessible both at school and at home.

Monitoring and Review

The monitoring of the standards of children's work and of the quality of teaching in maths is the responsibility of the SLT. The SLT supports colleagues in their teaching, informs staff about current developments in maths, and provides a strategic lead and direction for this subject in school.