

Hunts Cross Primary School

Maths Policy

January 2023



Subject Leader: A Bennett

Review date: January 2024

Hunts Cross Primary School- Maths Policy July 2020

Introduction

Mathematics equips pupils with the 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. It is integral to all aspects of life and with this in mind we endeavour to ensure that children develop a healthy and enthusiastic attitude towards mathematics that will stay with them to encourage economic wellbeing.

Aims

Although relating specifically to Mathematics our aims for the subject are also in line with the school's general aims.

The new 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 have conceptual understanding and are able to recall and apply their knowledge rapidly and accurately to problems
- **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.

Please see our schools Maths statement of intent for the specific aims of our school for this subject.

Subject Delivery (Teaching and Learning)

At Hunts Cross Primary School, our children are provided with a variety of opportunities to develop and extend their mathematical skills in and across each phase of education. Our Maths lessons follow the Shanghai style 5-part lesson, beginning with reviewing prior learning, a challenging hook to engage them in the lesson, sharing how children have tackled this problem, refining our technique and then practising our skill. We use a variety of teaching and learning styles in our Mathematics lessons in order to meet the individual needs of all our children. Indeed, in all classes children have a wide range of abilities, and we seek to provide suitable learning opportunities for all children by creating tasks that children of all abilities can access easily. This is not to say that we put a 'ceiling' on our children's learning. We strongly believe in maintaining high expectations of all our children and that with the right support they can all achieve their full potential. We endeavour at all times to set work that has high expectations for all, is challenging, motivating and encourages children to talk about what they have been doing.

Teaching in all our classrooms provides opportunities for:

- group work
- guided work
- paired work
- whole class teaching

- individual work

All our children have the opportunity to engage in:

- the development of mental strategies
- written methods
- practical work
- investigational work
- problem solving
- mathematical discussion
- consolidation of basic skills and number facts
- the appropriate use of Computing to support learning
- applying and using Mathematics across the curriculum and in real contexts.

At Hunts Cross Primary School we recognise the importance of establishing a secure foundation in mental calculation and recall of number facts before standard written methods are introduced. We use the appropriate mathematical vocabulary when planning to help determine the appropriate terminology to use in our teaching. Children are expected to use this terminology in their verbal and written explanations.

Time allocation

Maths is a core and vital part of the curriculum. It is taught daily across the school so that children have the opportunity to practise and re-visit key concepts. In EYFS, children have a daily, teacher-led activity focusing on a specific concept. Continuous provision activities are planned carefully to ensure Number and Shape, Space and Measure in planned into all aspects of the EYFS environment. KS1 have a daily maths lesson for 1 hour. In KS2, children have a 'Fluent in 5' session each day which usually lasts 5-10 minutes. These sessions focus on calculation and recall of facts which all children need to be secure in in order to access other aspects of the curriculum. Children in KS2 also have a daily Maths lesson of 1 hour.

Children's work

In Maths, children record their work in two places:

- Yellow A4 maths books. Each child has their own book and must record their work in the agreed format. Children will use pencil in their maths book and will write the date in number form in the top right hand corner of their page. The learning objective will be written underneath in the form LO: I can...All books will have a margin drawn on the left hand side of the page and all question numbers will be placed in here. Children are taught to have pride in their work and the presentation of these books.
- Yellow A5 Maths jotters. These books are used for children to complete their 'Fluent in 5' activities in as well as any other arithmetic and times table practise. These can also be used for any other jottings.
- EYFS will record their independent activity in their designated Maths books. Any observations or evidence of Maths in continuous provision can be found in children's learning journey.

For information on how our Maths books are marked, please see the school's Marking and Feedback Policy 2020.

Resources

It will be the responsibility of the Mathematics Subject Leader to purchase, store and maintain new Mathematics resources. All staff members will be involved in identifying the needs for new resources and will inform the Mathematics Subject Leader of any areas in which resources could be improved.

Environment

The learning environment is key to supporting our children's learning and a maths working wall is a key part of this. In every classroom there is a Maths Working Wall which is a public display of the learning process of the current concepts being taught including key vocabulary, basic skills and problems using this concept. On each working wall, teachers should include key vocabulary for the four calculations as well as any other vocabulary specific for the concept that is being taught. A number line will be available in every class and these will start at 0. The final number will be different depending on the year group. Teachers should also display times tables as well as stem sentence openers to support reasoning and explanations. Teachers use this display to support their teaching inputs and children are encouraged to utilise this display in each lesson as a supportive resource in their independent work.

Planning

Clear and careful planning is important to the success of the teaching and learning of Mathematics. At Hunts Cross, we follow the White Rose Hub scheme of learning in EYFS. From Y1-Y6 we follow the NCETM Curriculum Prioritisation document which, following the Covid-19 pandemic, re structured each year group's long term plan in order to spend longer on key concepts in which the children may be lacking skill and understanding. These plans outline the key concepts taught each term and can be found on the Curriculum page of our school website. By following NCETM, as well as accessing a variety of other teaching resources such as the White Rose Maths Hub, our children are exposed to a wide variety of reasoning and problem solving as well as ensuring they become fluent in key skills. When planning the activities that children will complete within each lesson to support the above sequence, teachers use a range of resources. These include (but are not limited to):

- NCETM Curriculum prioritisation
- DFE Ready to progress criteria
- NCETM National Spines
- White Rose Maths Hub questions
- NRICH website activities

As we follow a mastery curriculum, tasks are not differentiated based on ability as we expect all children to keep up with the demands of the curriculum. In cases where children may need further support, concrete manipulatives, additional resources, or the use of an LSA will be provided for support.

Equal Opportunities

• All pupils irrespective of gender, race, religion or disability, are entitled to a broad and balanced English curriculum. We have high expectations of all our pupils.

• Attainment of boys and girls as well as the achievement of other groups (e.g. SEND, EAL, Pupil Premium) is carefully monitored.

• Suitable resources and learning environments will be made available to enable children to access the learning required.

SEND

We believe that quality first teaching is essential in identifying and catering for the specific needs of all of our children. Teachers differentiate their questioning and level of support provided in order to ensure that all needs are met. Teachers monitor the progress of our children very carefully and if a child has not achieved a particular learning objective then same-day intervention will be put in place. If a child has been identified as SEN within Maths, and these short same-day intervention sessions are not improving attainment, additional intervention sessions are planned for the afternoon.

EAL

We are aware that children with English as an additional language may have specific challenges and may require tailored support in order to access the curriculum. Within Maths, the use of visual representations as well as concrete manipulatives is used alongside the English words and numbers in order to support progress.

More Able

Our 5-part lesson which has been adopted in Hunts Cross allows for more able children in Maths to dive deep into a concept from the start of every lesson. Our seating arrangement within class also provides opportunities for more able to children to explain their reasoning and understanding to other children therefore cementing their understanding. 'Going Deeper' challenges are also planned specifically for these children, yet all children can access these if they have achieved their learning objective.

Monitoring

Monitoring in Hunts Cross is undertaken in a variety of ways according to our monitoring timetable:

- The Mathematics subject leader/ Headteacher will observe lessons based on the School Development Plan
- Learning walks
- Monitoring of children's work in books
- Interviews with pupils
- Interviews with staff

Assessment

Assessment is regarded as an integral part of teaching and learning and is a continuous process. It is the responsibility of the class teacher to assess all pupils in their class. It is both formative and summative. In our school we are continually assessing our pupils and recording their progress. We see assessment as an integral part of the teaching process and strive to make our assessment purposeful, allowing us to match the correct level of work to the needs of the pupils, thus benefiting the pupils and ensuring progress.

Information for assessment will be gathered in various ways: by talking to the children, observing their work, marking their work, etc. Teachers will use these assessments to plan further work and inform the design of future lessons.

Summative assessment is conducted annually using the NFER end of year group assessments. From these, key groups of children are identified who may need intervention. These assessments are also used to aid planning.

Parents

Parents are important influences on pupils' attitude and attainment. We actively encourage and involve them in school life through:

- Homework - Times Tables Rock stars
- Parent Workshop mornings
- Stay & Play sessions
- Information-giving sessions
- Newsletters
- Parents' Evenings

Parents are given the opportunity to discuss Mathematics with their child's teacher through Parents Evenings and annually through a written report. Reporting in Mathematics will focus on each child's progress in all areas of the subject.