

Neatishead & Salhouse Federation Primary Schools Mathematics Policy

Aims of the new national curriculum

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.

(New National Curriculum July 2014)

Aims of teaching maths at Neatishead & Salhouse Federation Primary Schools

The teaching of mathematics is geared towards enabling each pupil to develop their learning without labelling them by ability. We endeavour to not only develop the mathematics skills and understanding required for later life, but also an enthusiasm and fascination about maths itself.

We aim to increase pupil confidence in maths so they are able to express themselves and their ideas using the language of maths with assurance. We encourage pupils to take risks with their learning and to develop a resilient attitude, checking systematically for understanding.

We recognise the importance of developing factual, procedural and conceptual knowledge.

We are continually aiming to raise the standards of achievement of everyone. Maths skills are vital for the life opportunities of our pupils.

The new national curriculum and key performance indicators

The New National Curriculum for Mathematics describes what must be taught in each Key Stage as well as defining a programme of study for each year group. We are also using the Key Performance Indicators published by the NAHT to plan and assess the progression in the teaching of mathematics.

In Early Years, the curriculum is guided by the Early Learning Goals and the 40-60 months Statutory Framework.

Planning

Planning is undertaken at three levels:

Long term planning is based on the programmes of study in the new curriculum and the key performance indicators from NAHT.

Medium term planning is carried out half-termly. Teachers select their focused key performance indicators and objectives from the new curriculum. At the Neatishead & Salhouse Federation Primary Schools we are building on the development of mastery in maths.

Short term planning is carried out weekly. These plans include key performance indicators, resources to be used, any differentiation, vocabulary and questions.

Cross-curricular links

Mathematics is taught mainly as a separate subject but every effort is made to link maths with other areas of the curriculum. We try and identify the mathematical possibilities across the curriculum at the planning stage. We also draw children's attention to the links between maths and other curricular work so children see that maths is not an isolated subject.

In the Early Years, these links are more evident because of the less formal timetable.

Teaching methods and approaches

Staff at Neatishead & Salhouse Primary Schools have worked together to develop a calculation policy that takes into account the criteria of the new National Curriculum.

Lessons have a flexible approach to ensure the pitch and pace suits the children. Teachers use their own judgement in how to approach teaching a concept and will incorporate group, paired or individual work as appropriate. (Further teaching guidance is contained in the Calculation Policy.) Pupils are encouraged to develop confident use of written methods. In EYFS the children work in small and large groups depending on the focus for the week. Maths activities are accessible at all times during child initiated learning.

Pupils engage in:

- The development of mental strategies
- Written methods
- Practical work
- Investigational work
- Problem-solving
- Mathematical discussion using precise mathematical language.
- Consolidation of basic skills and routines
- Mental maths challenges

We recognise the importance of establishing a secure foundation in mental calculation and recall of number facts before standard written methods are introduced. We all engage in daily sessions of mental maths across KS1 and 2. It aims to increase fluency in all times tables and number bonds, through their recitation and application in a variety of formats.

We endeavour to set work that is challenging, motivating and encourages conversation thereby demonstrating their understanding of the use of mathematical vocabulary.

Working walls/Displays

We recognise the importance of displays and working walls in the teaching and learning of mathematics. Every class displays relevant mathematical information which is consistent throughout the school. This is appropriate to the age of the class. These may include number lines, number grids, vocabulary and other display materials that provide a visual support for the children's mental processes.

Assessment

We aim to provide feedback to children through marking so that they have specific advice about improvements to their work. Children are given time to read and review their work following marking. They are encouraged to respond to teachers' comments. See separate Marking Policy for more information.

Teachers also assess children against the Key Performance Indicators and Mastery Statements using the following descriptors:

- **Beginning (Emerging)** At early stage of development (support needed)
- **Developing (Securing)** Growing ability and independence (prompting needed)
- **Embedded (Secure)** Exhibits skill independently
- **Beginning + 1 (Mastery)** Exhibits skill spontaneously and with confidence

Assessment sheets can be completed as a baseline, at the end of a unit of work or half term or as a summative document and recorded onto Pupil Asset (For further information please refer to the Assessment Policy.)

Reporting

All parents receive an annual written report on which there is a summary of their child's effort and progress in mathematics over the year. Pupils are involved in identifying their own successes and challenges throughout the year.

Resources

Resources for the delivery of the maths curriculum are stored both centrally and in classrooms. Everyday basic equipment is kept in classrooms. Additional equipment and topic-specific items are stored in other areas.

The Neatishead & Salhouse Federation Primary Schools uses a variety of published materials to facilitate the teaching of mathematics but recognises the need for the teaching of maths to be 'scheme assisted not scheme driven'.

Pupils follow the Abacus Programme which is supported by additional programmes when necessary.

Materials are constantly updated, as new and relevant items become available. The logic and problem solving team orders new resources after consultation with the staff.

Equal opportunities

As a school we endeavour to maintain an awareness of, and to provide for equal opportunities for all our pupils in mathematics. We aim to take into account cultural background, gender and Special Needs, both in our teaching attitudes and in the published materials we use with our pupils.

Children with special educational needs

All children receive high quality inclusive teaching. Where possible, we aim to fully include SEN pupils in the daily mathematics lessons so that they benefit from the emphasis on oral and mental work and by listening and participating with other children in demonstrating and explaining their methods. There are high expectations for all pupils. Resources are provided to encourage children to learn independently and support their learning. Specialist resources, such as numicon are also used, where appropriate.

Where necessary teachers will, in consultation with the SENCO and members of the SLT, draw up programme of support for a child. If a child's needs are particularly severe they will work on an individualised programme written in consultation with the appropriate staff.

When planning, teachers will try to address the child's needs through simplified or modified tasks. Support staff are deployed effectively.

Homework

IN EYFS there is not any formal homework. In Key Stage 1 maths homework is sent when the class teacher feels it is appropriate to do so. In Key Stage 2, children receive homework each week. The homework given will progress as the children move up through the school. The aim of homework is always to consolidate learning that has been happening in the classroom.

Monitoring

It is the subject leader's role to monitor the implementation and progress of this policy and the National Numeracy Strategy. This is done through consultation with the Headteacher, staff and governors, lesson observations, monitoring of planning and assessment and scrutiny of children's books.

It is also the subject leader's role to update and maintain resources, to give advice and support to staff regarding the implementation of the NNS and to organise and deliver Inset as required.

This policy will be deemed a success when there is evidence of:

- a positive direction of teacher's planning whilst allowing sufficient flexibility to respond to changes
- a wide range of teaching approaches and mathematical activities that directly promote the interests, skills and understanding of all children. There is **evidence of routine practice skills, development of understanding, investigative problem solving and assessment activities.** Children will be learning through a mixture of whole class teaching, small group discussion and individualised practice.

- a direct connection between high teacher expectation and the standards achieved within their work
- sufficient resources being available for the effective implementation of the policy and the NNS
- assessment being used to inform subsequent planning and teaching

This policy will be reviewed in full by the Governing Body on a yearly basis.
This policy was reviewed and updated in September 2015

Signed.....*Peter Jefford*.....Chair of Governors

Date...*14th October 2015*.....

Next review date: *September 2016*