

Waterthorpe Nursery Infant School



Mathematics Policy

Approved by: Curriculum Committee

Date: December 2013

Next Review Date: Autumn 2016

MATHEMATICS POLICY

Introduction

Mathematics provides a way of viewing and making sense of the real world. It is a creative activity involving imagination, intuition and discovery. Mathematics is a way of solving problems and a means of communicating information or ideas.

Aims

Waterthorpe Nursery Infant School pupils will be given opportunities to develop their mathematical skills, knowledge and understanding through a broad, balanced and enjoyable curriculum. We seek to provide opportunities for children to:

- develop their mathematical potential and create a confident and positive attitude towards mathematics.
- equip themselves with the skills, knowledge, concepts and attitudes which will enable them to deal confidently and competently with mathematics in their lives.
- make progression throughout the school, building on existing skills, knowledge and understanding.
- use and choose from a range of resources, including Information Communication Technology (ICT) and have access to interactive activities.
- become familiar with the vocabulary and symbolisation of mathematics and communicate ideas to others.
- develop ways of working so they are able to perform mathematical tasks both independently and collaboratively.
- handle numbers with confidence using mental and written methods.
- meet the needs of the National Curriculum by following the Primary National Strategy.
- participate in family learning through workshops and the Maths Bag Library

Teaching and Learning

To support the National Curriculum and the Primary National Strategy we have published schemes from which teachers may select appropriate activities to match learning objectives. In KS1 there is a daily maths lesson for all pupils and during an average week, three lessons may have a number focus with two lessons focussing on shape, space, measures or data handling. However, mathematical topics may be taught in weekly blocks.

In Y2 children are grouped according to ability across the year group and taught in smaller groups.

In Y1 the children are grouped within the class and work is differentiated.

In FS1 Mathematical development is mainly cross curricular and links to the planned focus. (see Foundation Stage Profile)

Resources

In KS1 and FS2 pupils are provided with the experience of working with a wide range of resources. Each base has its own selection of resources e.g. Multilink, dice, number cards, 100 square, counting apparatus etc. These are available at all times and children are given opportunities to choose appropriate resources for a given task. Additional equipment is stored centrally in labelled boxes in the school hall and in the maths cupboard. Teachers make the appropriate resources available to the children to support their mathematical investigations as and when required.

In FS1 Maths resources are kept in the Nursery. They are cross curricular within the six areas of learning and are linked to the planning focus.

At the Foundation stage and Key Stage 1 calculators are not used for solving problems involving number operations but a class set is available in school for use as a teaching aid for activities including number patterns, sequencing and role play.

Planning

Long Term Planning – This is a yearly overview of the topics to be covered and it follows the National Numeracy Strategy and National Curriculum.

Medium Term Planning – Half termly planning sheets detail weekly learning objectives taken from the National Numeracy Strategy. They include learning objectives for mental and oral, number, shape and space, measures and data handling.

Short Term Planning – Weekly plans cover learning objectives and activities for each day. They include details of the introduction and conclusion of a lesson, differentiation where appropriate for groups, key vocabulary and specific resources.

Medium term plans are monitored by the subject leader. (see Monitoring Policy). In KS1 and FS1 they are kept in the planning files in the appropriate bases.

All planning for FS1 is kept in the Nursery.

Assessment and Record Keeping

This process takes place in a number of ways:

- Quality, focussed marking in children's books (see Marking Policy)
- Teachers carry out on-going assessment through comments/colour codes on the short term planning relating to individuals and groups to inform future planning.
- End of Year 1 standardised tests.
- SATs tests in Year 2
- The results of SATS and Y1 tests are analysed by the subject leader and the Headteacher and areas for development are noted. The information is then passed on to the teachers.
- Parents will receive an annual report informing them of their child's progress. As a result of Baseline Assessment parents of Reception children are informed of their child's starting point. Parents of Year 2 children will receive information of their child's level of attainment as a result of the Standards Assessment Tasks and Tests and Teacher Assessment.
- In FS1 and FS2, observations inform teachers' planning and provide evidence for the Portfolio.
- In Y1 and Y2 a termly checklist for AT2, including sub levels, is completed. This informs target setting at the beginning of the year.
- In Y1 and Y2 a termly Teacher Assessment record sheet, including sub levels, is completed showing children's overall National Curriculum Level in Mathematics. This also indicates whether the children are on target and informs future target setting and intervention strategies.

Monitoring and Evaluation

This takes place in the following ways:

- Long term planning is displayed in the staffroom giving all staff an overview for the year.
- Medium term planning is monitored by the subject leader.
- All teachers will have a lesson observed by the subject leader, Headteacher or consultant(see Monitoring Policy).

- Analysis of SATs results. (see Maths monitoring file)
- Analysis of Y1 standardised tests. (see Monitoring file)
- A Mathematics Action Plan identifies focus areas for future development.
- Monitoring the Foundation Stage Profile Analysis by the leader and headteacher
- Developing a Monitoring Portfolio in the Foundation Stage
- Work sampling and scrutiny takes place once a year
- The subject leader has access to short term planning
- Informal discussions take place between colleagues and the subject leader

Home/School Links

In Y2 the children will be given weekly homework tasks on Fridays which relate to the previous week's Maths focus.

In Y1, children and parents are given the opportunity to attend a Maths Bag workshop. They can then borrow a Maths bag to take home from Blue Base on a weekly basis. The bags contain activities and games following a Mathematical theme.

Staff Development

In order to maintain and build upon staff development, some of the following strategies will be used during a school year:

- A curriculum day
- Staff meetings
- INSET courses
- Continuous support on an individual basis from the subject leader

The Role of the Maths Leader

The Maths Leader will keep staff informed and up to date with the new documents, monitor the policy and the scheme of work, support staff planning in maths activities, manage the maths resources and organise INSET.

Review and Evaluation

This document will be reviewed in Spring 2013.

The Daily Mathematics Lesson

Mental and oral session (Whole Class)	This session will be at the start of the lesson. Children will practise or recall number facts, focusing on a learning objective.
Introduction (Whole Class)	In this part of the lesson the teacher: <ul style="list-style-type: none">● identifies the lesson learning objective● identifies any key words● introduces a new topic or recaps on previous work● explains what the children are learning● explains different activities and resources for the groups
Pupil Activities (Groups, pairs or individual work)	In this part of the lesson the teacher: <ul style="list-style-type: none">● checks on the children's confidence, skills and understanding● ensures all children understand the task and focus on one or two groups● is assessing children's progress by observation, discussion and marking Children may be: <ul style="list-style-type: none">● talking about their task to each other and the teacher● recording work● using the computer to support the learning objective
Conclusion (Whole Class)	In this part of the lesson the teacher: <ul style="list-style-type: none">● recaps on the learning objective and key words● revisits the important aspects of the lesson using children's work, questions and answers● may work on particular difficulties● introduces the focus of the next lesson