

MEADFURLONG SCHOOL

NUMERACY POLICY

January 2010

Introduction

At Meadfurlong School we aspire for numeracy to be exciting, enjoyable and stimulating. We will provide high quality teaching which is engaging, interactive, aspirational and securely built on children's prior learning. We aim for all our children to succeed in numeracy and develop the necessary skills and strategies to equip them for future life. Numeracy supports and develops children's thinking, reasoning and their ability to solve-problems. The ability to analyse information and solve problems are key skills in which numeracy has a significant part to play.

This policy sets out our approach to the curriculum, teaching and learning in numeracy and ensures consistency of approach and strategies throughout our school. We have high expectations of our children and staff and our vision for numeracy is very much in keeping with our school vision.

Curriculum Structure

The planning structure for each year is organised into five blocks. The structure is the same for each year group. A block is designed to cover the equivalent of 6 weeks or 9 weeks of teaching. Each block has incorporated into it objectives from the Using and Applying mathematics strand and from two or three of the other core strands. The blocks are:

- Block A: Counting, partitioning and calculating
- Block B: Securing number facts, understanding shape
- Block C: Handling data and measures
- Block D: Calculating, measuring and understanding shape
- Block E: Securing number facts, relationships and calculating

Each block is made up of three units. A unit represents 2 or 3 weeks of teaching. For each of the 15 units that cover the teaching year there are overviews of children's learning, assessment questions and suggested resources. These are intended to provide support when planning the children's learning and reviewing their progress. The units are designed to be used independently when planning a period of 2 or 3 weeks' work. However, when mapping out the blocks and units over the term or year the inter-relatedness of the content and pitch of the units needs to be taken into account.

Organisation, Timings and Inclusion

From Years 3 – 6 each teacher will provide a daily mathematics lesson. This may vary in length but will usually last for about 60 minutes.

Although children are taught in ability setting, work is differentiated according to specific or individual need. In practice, in most classes there will be work and activities for different ability groups. The numeracy curriculum will cater for children who are more able as well as those children with particular educational needs.

Approaches to Teaching and Learning

At Meadfurlong we have a very clear view of our approach to the teaching of numeracy. Although the planning is based on the New Framework, all teachers adjust and modify their plans to ensure the individual children's needs of every child are met.

There are a number of key elements that represent good practice in the teaching of numeracy. At Meadfurlong School, these are the key elements we will include within our teaching.

- **Provide rigorous and detailed planning.** It is fundamental to ensure lessons are built upon prior learning and enable children to progress in clear logical steps. Planning needs to provide opportunities for children to experience a balance of learning activities in numeracy including exploration, acquisition, consolidation and application of knowledge and skills, with opportunities to use, extend and test ideas, thinking and reasoning.
- **Provide enjoyable, stimulating experiences which engage and inspire children to learn.**
- **Provide clear learning intentions and process-led success criteria for every lesson.**
- **Model, direct and steer children's learning.** Teachers will model methods for calculation, ways of exploring mathematics and looking for patterns, rules and properties. Teachers use relevant examples to model which are supported with discussion and explanation. (I.e. teachers need to explain their thinking.)
- **Provide opportunities through the numeracy lesson for children to consolidate and practise skills they have learned.** Teachers will ensure children have a wealth of opportunities for children to practise and consolidate their understanding.
- **Engage with children's thinking.** Teachers will provide children with opportunities to think, engage and discuss their ideas, strategies, concepts and mathematical representations.

- **Demonstrate mathematical vocabulary, use of symbols and diagrams.**
- **Provide opportunities through the numeracy lesson for children to use and apply what they have learned to solve problems, make links and identify patterns.**
- **Teach children how to evaluate solutions and analyse methods.** Teachers will provide opportunities for children to learn from misconceptions, and understand why some methods are more efficient than others.
- **Assess and review children’s learning and understanding.** Teachers will regularly review children’s learning and adapt planning in the light of children’s understanding. Teachers will also engage children in reviewing and managing their own learning, encouraging self-assessment and awareness.

A Typical Lesson

A typical lesson in Year 3 to Year 6 will be structured like this:

- Oral work and mental calculation – generally at the beginning of the lesson. This is the opportunity for whole-class work to rehearse, sharpen and develop mental and oral skills.
- Main teaching activity. This will include both teaching input and pupil activities and a balance between whole class, grouped, paired and individual work.
- Plenary session. This will involve work with the whole class to:
 - identify and eliminate misconceptions
 - highlight progress and learning
 - summarise key facts and ideas
 - make links to other areas of the curriculum
 - discuss next steps

Home Learning and Links with Other Subjects

Key skills will be extended through home learning tasks. (Please see the Homework Policy for further details.) Numeracy contributes to many subjects within the primary curriculum and opportunities will be sought to draw mathematic experiences out of a wide range of activities. This will enable children to use and apply mathematics in real contexts.

Resources

Teachers at Meadfurlong will make use of a wide range of relevant resources to enhance children’s learning. Each class will have a variety of day to day resources such as bead

strings, number fans, number lines and grids. In addition there is a central store of larger more specialist equipment, for example capacity containers, weighing scales, 3d shapes. ICT will be used in various ways to support teaching and learning and all classrooms have interactive whiteboards. ICT will involve use of calculators, audio-visual aids and computers.

Assessment

Assessment for learning is a key feature of our school. Through discussion, observation, marking and feedback teachers are continually assessing children's progress and learning. Teachers ensure children know how they have been successful and what steps they need to take to improve. Misconceptions are identified, analysed and discussed and children are made aware of their next targets for improvement. Through clear learning intentions and process led success criteria the key learning steps are transparent.

Through the use of APP (assessing Pupil's Progress), teachers keep careful records of children's day to day progress and summative assessments and records are completed each term. A summative assessment is made at the end of every term and the school makes effective use of the Optional Sat papers.

Role of the Curriculum Leader

The numeracy leader is a pivotal teacher within the school. The role includes the following areas:

- Providing demonstration lessons
- Guiding teachers with all aspects of the numeracy curriculum
- Leading by example in their own practice
- Contributing and leading relevant training for staff
- Monitoring teaching, learning and standards of numeracy throughout the school

The following papers are appended to this policy:

Appendix 1 – Methods of Written Calculation

Appendix 2 – Planning Grid

Signed..... Date.....