

Brookhurst Primary School

## Mathematics Policy

Jane Ford (Numeracy Coordinator)

### **The Purpose of this document**

This policy reflects the school values and philosophy in relation to the teaching and learning of Mathematics. It sets out the framework within which the teaching and non-teaching staff can operate and gives guidance on planning, teaching and assessment. The policy should be read in conjunction with the Programmes of Study from the National Curriculum and the National Numeracy Strategy Renewed Framework, which sets out in detail what pupils in different year groups will be taught and which resources are used. This document is intended for all teaching staff and non-teaching staff with classroom responsibilities, School Governors, parents, inspection teams, L.E.A. advisors and interested others. Copies are provided to School Staff and the Governing Body. Other copies are kept in the school office.

### **Subject Aims and Objectives**

Mathematics is a core subject within the National Curriculum. The aims for Mathematics are:

- ◆ To take into account the Programmes of Study from the National Curriculum
- ◆ To follow and plan from the National Numeracy Strategy Renewed Framework and the Foundation Stage Profile and curriculum guidance.
- ◆ To promote positive attitudes towards mathematics and an enthusiasm for mathematics work in school
- ◆ To use mathematics to analyse and communicate information
- ◆ To develop mathematical understanding through practical tasks, enquiry and investigation
- ◆ To provide breadth and balance of mathematical activities for all children
- ◆ To create an awareness of the relevance of mathematics to the whole curriculum
- ◆ To provide a differentiated mathematics curriculum to meet the needs of all the children through the continuity of experiences
- ◆ To ensure a progressive development of mathematical concepts, knowledge, skills and attitudes

Children at Brookhurst Primary School follow the structure of the National Curriculum for Mathematics and work at levels appropriate to their ability. It is expected that most children will achieve level 2 by the end of Key Stage 1, and level 4 by the end of Key Stage 2.

In the teaching and learning of Mathematics, we can identify a number of objectives which will enable children to apply knowledge and skills, solve problems of a practical and investigative nature, and communicate their ideas to others using appropriate mathematical language.

The children will:

- ◆ Experience a balanced range of mathematical activities as an integral part of the whole school curriculum
- ◆ Have opportunities to develop basic mathematical skills, concepts, attitudes, and knowledge appropriate to the development of the child
- ◆ Have opportunities to acquire, practise and develop mathematical skills
- ◆ Have opportunities to work in a variety of ways, class, group, individually, depending on the task
- ◆ Have access to practical tasks which will enable them to develop mathematical language
- ◆ Be able to perform basic operations and apply them in a variety of situations

### **Formal Written Calculation Policy (See Appendix 1)**

The policy has been developed to guide teachers in the maintenance of a consistent approach to written calculation. This is to ensure progression between Year Groups. It is to be used alongside the National Numeracy Strategy Renewed Framework and the Programmes of Study when planning and delivering lessons, and monitoring children's' progress.

### **Planning the Mathematics Curriculum**

Planning is the responsibility of the Class Teacher together with help from the Mathematics Coordinator. It is to be guided by the National Numeracy Strategy Renewed Framework, the Mathematics Policy and the Formal Written Calculation Policy (See Appendix 1).

Planning is used to:

- ◆ Set clear achievable goals;
- ◆ Ensure work is matched to pupils' abilities, experience and interests.
- ◆ Ensure progression, continuity and subject coverage throughout the school;
- ◆ Provide criteria for assessment and evaluation of teaching and learning.

As the Class Teacher plans the teaching of Mathematics, they will consider how the curriculum will be differentiated. Consideration will be given to:

- ◆ Pupil groupings, e.g. ability or mixed ability groups; or group, paired or individual activities;
- ◆ Resources, e.g. different equipment for different levels of ability; to provide a breadth of experiences;
- ◆ Pupil activity, e.g. different group tasks, different pupil roles and responsibilities, different allocations of time and variation of pace within the lesson to meet the needs of different levels of ability;
- ◆ Other opportunities, e.g. extra-curricular activities, club links and interest groups for the development of excellence.

Differentiation by task is achieved when pupils, who are pursuing the same part of the Programmes of Study, are given a range of different but related tasks according to their level of ability.

Differentiation by outcome is achieved by setting tasks, which are suitable, and appropriate for all the pupils' starting level and which allow the more able pupils to be challenged and those with SEN to achieve with confidence.

Teachers' written curriculum plans will be monitored by the Mathematics Co-ordinator, who will also provide support where necessary. These should be completed half-termly and weekly in Foundation & Key Stage 1, and termly and weekly in Key Stage 2.

### **The role of the Mathematics Coordinator**

The Mathematics Co-ordinator is responsible for the development and monitoring of the Mathematics curriculum. He/she plans work with teachers and reviews and contributes to their planning. He/she is responsible for updating the School's Policy and Scheme of Work, and Subject Development Plan for the School Development Plan.

He/she assists staff by leading staff meetings; planning and leading in-service training activities; providing consultancy and advice, supporting staff in the classroom; specifying and ordering resources; coordinating staff requests for resources and monitoring and maintaining the condition and availability of resources.

He/she regularly liaises with the Mathematics Governor to keep the Governors informed about developments within the subject, to enable them to monitor the Teaching & Learning of Mathematics within the school.

He/she maintains a positive ethos for the subject, through support and encouragement of staff, children and parents.

In monitoring and evaluating he/she analyses pupils' access to the subject; reviews teachers' plans; observes classroom practice and monitors levels of achievement in the subject.

### **Resources and Accommodation**

A variety of Mathematics resources are available in school (See Appendix 2)

These include:

- ◆ The National Numeracy Strategy Renewed Framework (electronic)
- ◆ SENCO Training Pack
- ◆ The Formal Written Calculation Policy (See Appendix 1)
- ◆ Specific resources to support the strategy
- ◆ Abacus Evolve Scheme
- ◆ Teacher made resources
- ◆ Teacher reference books
- ◆ Photocopiable resources
- ◆ Practical Mathematics equipment for investigation work

- ◆ TV programmes and videos
- ◆ Computer based materials
- ◆ Pictorial resources

Resources are shared and all staff have access.

General resources are stored in the Learning Resource Centre. All these resources (See Appendix 2) are labelled. Other resources and equipment, which are core materials, are stored in individual classes or year groups.

Mathematics reference books, topic books and pictorial resources are kept in the Learning Resource Centre. Some specialist resources for Mathematics teaching with SEN children are available in the Special Needs Resource area.

### **Equal Opportunities**

All children have the same access to mathematical activities regardless of their gender, race or cultural background.

### **Special Educational Needs**

In accordance with the Special Needs Policy children with special educational needs are included in all lessons.

Wherever practicable, provision will be made for pupils with special educational needs, where it affects their ability to take part in Mathematics lessons. They may have sensory difficulties, physical difficulties, cognitive limitations, and/or emotional and behavioural disorders. It is the responsibility of the Class Teacher to ensure that any special equipment for a lesson is available to such children. If teachers need any special equipment they must bring this to the attention of the Mathematics Coordinator and the Special Needs Coordinator.

It is important to concentrate on pupils' abilities and needs, not on their disabilities. At times it may be appropriate to have the help of a Learning Support Assistant to assist with the management of a particular child during Mathematics. If this is the case, it is often preferable to have the Assistant working with a group of pupils, which includes the child who needs the support. Everything will be done to avoid highlighting the disabilities of any particular child.

Pupils who attain a lower level will need constant reassurance and patience to help improve their confidence.

Suitable intervention materials are available to support children who are attaining at a lower level;

- ◆ Springboard programmes 3-6 available in KS2 classrooms
- ◆ Wave 3 Intervention materials available on CD ROM and on the network.

### **Time Allocation**

The time allocated to the teaching of Mathematics is based on the recommendations of the National Numeracy Strategy. All children receive a daily Numeracy lesson of between 45 and 60 minutes. In addition to this time an additional amount of time may be spent on Mathematics work linked with topics.

As part of the process of transition from Foundation Stage to Year 1 the elements of the daily Numeracy lesson may be taught in shorter sessions over the course of the day.

### **Classroom organisation and Teaching Style**

Within classes pupils are taught as a class, within a group and individually according to the learning task. A variety of appropriate teaching styles are utilised for each lesson. Teachers recognise that children need to use a variety of learning styles to enable full access to the curriculum.

### **Assessment and Record Keeping**

On going teacher assessment has always been an integral part of good practice. It is important to remember that the main reason for assessment is to enable the teacher to match the tasks set to the abilities and needs of the pupils as they progress. Class Teachers assess pupil progress and track this termly for all pupils and half termly for pupils on the Support List and information gathered is shared with the SENCO, Gifted and Talented Coordinator and Assessment Coordinators. Records of Mathematics work in the form of photographs, samples of a range of work and Foundation Stage Profiles are also kept by the Mathematics Coordinator.

### **Review date**

This policy was adopted by Governors on the \_\_\_\_\_ and will be reviewed either as necessary or every three years.

Jane Ford Numeracy Coordinator 2007