

# ASHBROOK SCHOOL



**"Everyone matters; everyone is  
important"**

## **MATHEMATICS POLICY**

Updated Spring 2010

## MATHEMATICS POLICY STATEMENT

### School Aim

"Everyone matters, everyone is important."

Co-ordinator: Ms S Hunt Link Governor: Mrs Sabine Walker

### INTRODUCTION

Mathematics allows ideas and information to be communicated in a variety of ways. Children should be encouraged to talk and write about mathematical ideas with assurance and to use the language of mathematics with confidence.

### AIMS

- To meet the requirements of the Primary Framework for Mathematics
- To develop the children's knowledge and understanding of mathematical concepts
- To encourage children to become confident and competent mathematicians and to be able to communicate their understanding
- To foster a positive and enthusiastic attitude towards mathematics through varied activities that allow opportunities for enjoyment and exploration

### LEARNING INTENTIONS

- To think independently in applied and abstract ways
- To reason, solve problems and assess risk
- To explain methods and reasoning orally and in writing
- To accurately use mathematical vocabulary

### ORGANISATION (see also Basic Skills Policy)

Mathematics is taught through a combination of approaches using a differentiated curriculum in order to meet the needs of all children throughout the school. All children are taught the skills and knowledge of Mathematics as outlined in the Primary Framework for Mathematics and the Foundation Stage Curriculum. The general requirements for the Primary Framework for Mathematics allow for a balanced programme of mathematical activities on a daily basis, which build on previous work and achievements. The Primary Framework for Mathematics gives consideration to the progression of knowledge, skills, values and attitudes and the use of resources.

### MANAGEMENT

The curriculum for each year group is divided into six half-termly units and is

delivered by teaching specific mathematical skills as outlined in the Primary Framework for Mathematics and the Foundation Stage Curriculum.

The scheme of work for mathematics is taken from the Primary Framework for Mathematics and the Foundation Stage Curriculum and the effectiveness of the programme is evaluated on a regular basis.

At both Foundation and Key Stage 1, planning ensures links with other subjects. A whole school approach to Mathematics ensures progression of knowledge and skills.

Children are usually grouped according to ability, but teachers use their professional judgement to allow for different groupings when necessary. In Year 2 the children are also split into two sets.

### **TEACHING AND LEARNING**

Where teaching is concerned, better numeracy standards occur when teachers:

- structure their mathematics lessons and maintain a good pace
- provide daily oral and mental work to develop and secure pupils' calculation strategies and rapid recall skills
- devote a high proportion of lesson time to direct teaching of whole classes and groups, making judicious use of textbooks, worksheets and ICT resources to support teaching, not to replace it
- demonstrate, explain and illustrate mathematical ideas, making links between different topics in mathematics and between mathematics and other subjects
- use and give pupils access to number lines and other resources, including ICT, to model mathematical ideas and methods
- use and expect pupils to use correct mathematical vocabulary and notation
- question pupils effectively, encouraging the use of talking partners which allows them to always be actively engaged, giving them time to think before answering, targeting individuals to take account of their attainment and needs, asking them to demonstrate and explain their methods and reasoning, and exploring reasons for any wrong answers
- involve pupils and maintain their interest through appropriately demanding work, including some non-routine problems that require them to think for themselves

- ensure that differentiation is manageable and centred around work common to all the pupils in a class, with targeted, positive support to help those who have difficulties with mathematics to keep up with their peers.
- endeavour to promote thinking skills to complement the key skills within the National Curriculum.

### **CROSS CURRICULAR LINKS**

Links are to be found between mathematics and a range of other curricular areas. However, the links should be genuine rather than contrived and should allow children to use and apply mathematics in real contexts.

Parents are actively encouraged to support their children's learning at home, as outlined in the Home Learning Policy. Support materials are available to parents in the School Library. Parents are informed of new initiatives and given guidance where appropriate.

NB: For parents we include anyone who has the primary responsibility for the care of the pupil.

### **PLANNING, CONTINUITY AND PROGRESSION**

#### **Foundation Stage**

In the Foundation Stage maths is taught as an integral part of the topic work that is covered throughout the year. All planning at this level is related to the objectives set out in the Early Years Foundation Curriculum.

Maths is one of the six areas of the curriculum that is delivered to the children and comes under the heading of *Problem-Solving, Reasoning and Numeracy*.

The activities are planned through the three strands of:

- Numbers as labels and for counting
- Calculating and Shape
- Space and Measures

Most activities are carried out in a practical play-based way, with opportunities for the children to experience as much as possible first hand.

#### **Key Stage 1**

In Key Stage 1 the mathematics planning is based on the Primary Framework for Mathematics. The learning objectives are contained in five blocks - A, B, C, D and E. These are covered each term. Some learning objectives are covered in all of the blocks.

The planning is carried out in three stages:

- *Long term* (day to day)
- *Medium term* (periodic)
- *Short term* (transitional)

The *long term* plans show how the year's teaching blocks are broken down into termly units, eg: Block A, unit 1.

The *medium term* plans show how the learning objectives in each unit are distributed into two or three weeks of maths lessons.

These objectives are then transferred onto a weekly planning grid and form the *short term* plans alongside the suggested teaching input, the differentiated activities that the children access and the focus for the plenary.

In Autumn 2009 we used the **APP statements for mathematics** as a **planning tool**.

We identified a child from each group and highlighted the number statements as they were accessed. This identified any gaps in learning to influence future planning.

### **DIFFERENTIATION** (see also **Special Needs Policy**)

Our aim is to meet the needs of each individual child and involve them as far as possible in determining their next target and organisation of their pace of work.

Some children will be able to pursue more demanding work at higher levels and should be encouraged to do so. Some children will benefit from work at a lower level in order to help them consolidate particular skills. This will be addressed through planning.

### **EQUAL OPPORTUNITIES/SPECIAL NEEDS/INCLUSION**

All pupils will have access to mathematics on an equal basis, irrespective of gender, race or religion, and at an appropriate level. As far as possible, any child with a specific disability will be provided with the same opportunities as his/her peers.

A broad, balanced and differentiated curriculum will be provided in order for each child to achieve their potential as far as their capability allows.

### **ASSESSMENT, RECORDING AND REPORTING**

Assessment is an integral part of the teaching and learning process. This testing is a combination of Standard Assessment Tasks and regular teacher assessment, which help to determine the child's level of performance and aid future planning.

Assessment may be made through observing practical work, discussing and listening as well as monitoring written work

Children are assessed through the APP mathematical statements in Key Stage 1 and the Early Years Foundation Stage Curriculum Profiles in the Foundation Stage.

Assessment is undertaken at three connected levels - short term, medium term and long term, to inform and support a continuous cycle of planning, teaching and assessment.

### **Short Term**

Assessments are an informal part of every lesson and may be recorded in formative records, as appropriate.

### **Medium Term**

Assessments take place each half term and are recorded in children's individual assessment books and children's formative records as appropriate. To level children in KS1 we will be using the APP statements.

### **Long Term**

Assessments are made towards the end of the academic year and review progress and attainment against school and national targets. These assessments are passed on to the next teacher, through class and individual record sheets, and to parents through end of year records of achievement and parent consultations.

In Foundation, the Foundation Stage Profiles are an ongoing assessment and therefore continually updated.

At present, Years 1 and 2 do the NFER standardised marks test in the Autumn Term.

### **OPERACY**

- Thinking is an important human life skill which, like literacy and numeracy, has to be learned and practised to be effective.
- We use "thinking tools" to help with this process. These tools help us to generate often completely new ideas in all areas of the curriculum which may not have been considered before.
- Once the thinker has acquired the skills and techniques they can control and direct their thinking at will.

## **STAFFING AND RESOURCES**

Class teachers are responsible for delivering mathematics within their class. There is a nominated member of staff who has responsibility for co-ordinating the curriculum and is supported by a Link Governor.

## **MONITORING AND EVALUATION**

The Senior Management Team, the Mathematics Co-ordinator and the Link Governor are responsible for ensuring the appropriate policy statements, guidelines and schemes of work are drawn up and revised in line with the School Improvement Plan, the Primary Framework for Mathematics and Early Years Foundation Stage Curriculum.

The Senior Management Team and the Mathematics Co-ordinator are jointly responsible for the planning, teaching, learning, monitoring and evaluation throughout the school.

All planning sheets are available to co-ordinators to monitor and evaluate their curriculum area throughout the school and provide input as required.

## **DATE WRITTEN**

This policy was rewritten in Spring Term 2010 and will be regularly reviewed in line with the ever changing learning climate. This policy is fundamental to the success of Ashbrook School and will be actively shared with all stakeholders.