

# **HOLY TRINITY C.E. SCHOOL, SUNNINGDALE**

## **MATHEMATICS POLICY**

### **THE NATURE OF MATHEMATICS AND ITS PLACE IN THE CURRICULUM**

Mathematics has many uses: to represent or communicate, to predict what will happen, to explain or verify. Mathematical skills such as calculating, measuring, constructing and representing have wide application: in everyday situations, in science and technology and in many other aspects of everyday life.

Mathematics is included in the curriculum not only because it is useful. Around the world people use geometric patterns for decoration. They also gain enjoyment from strategic games and logical puzzles, either on their own or with others.

In these different ways mathematics contributes to each child's personal, social and intellectual development and ensures that the 'Economic well being' outcome of Every Child Matters is achieved.

### **AIMS**

Our aims in teaching mathematics are to enable children to:

- enjoy and feel confident about mathematics
- develop a positive attitude to the subject
- achieve a high skill in numeracy and range of other mathematical skills
- apply these skills in solving problems
- use appropriate vocabulary and methods of representation to communicate mathematical ideas
- reason logically
- appreciate why mathematics is important and the contribution it makes to our lives
- develop the ability to work co-operatively

For parents to:

- be actively involved in their children's mathematical learning
- understand and support the school's mathematics and homework policies

### **EQUAL OPPORTUNITIES**

All children will have equal access to the mathematical curriculum, regardless of race or gender. Appropriate strategies will be taken to assist children with language difficulties. It is our aim to promote a positive attitude to mathematics in all children.

### **SPIRITUAL DEVELOPMENT**

Opportunities will be planned in the teaching of mathematics for the pupils to experience the excitement and wonder of: solving a problem, seeing a pattern in an investigation and discovering maths in the world around them.

## **HEALTH AND SAFETY**

Children who are using mathematical equipment will be trained to work safely at all times.

## **THE NATIONAL CURRICULUM**

All teachers have detailed knowledge of the National Curriculum Programmes of Study, Attainment Targets and Level Descriptions appropriate to the age group they are teaching. Teaching will be based on the Renewed Framework For Mathematics which consists of 5 blocks, each containing 3 units to be divided between the 6 terms, for each year group.

## **EARLY YEARS FOUNDATION STAGE**

In the Reception Class teaching will be based on the objectives in the current Early Years Foundation Stage documents. A wide range of practical activities will support the teaching and learning of mathematics. Lessons will often include, or be based upon well planned activities for children's play. The range of activities will be organised for the promotion of social skills as well as the teaching of mathematics.

The children will receive some direct teaching and work as a whole class, in groups, pairs or as individuals. They will develop an understanding of the number system through counting in varied contexts and have many opportunities to talk about mathematical ideas, exploring those ideas through well planned play and practical work.

## **SPECIAL NEEDS**

Children who are experiencing learning difficulties will be given work which is differentiated. Suitable resources will be used and may include support from a Learning Support Assistant. Some children may have an Individual Education Plan (IEP).

More able pupils will be stretched through differentiated work and extra challenges. They will be encouraged to attend masterclasses and summer schools provided by the borough and also work with an Advance Skills Teacher from Charters School.

## **TEACHING METHODS**

Our core scheme will usually provide a daily mathematics lesson, which may vary in length but in general will last 45 to 60 minutes, depending on the age of the children. It will consist of:

- Oral/mental starter – to rehearse, sharpen and develop mental and oral skills
- Main teaching activity – including teaching input and individual/group work
- Plenary – to summarise key facts, make links to other work and discuss next steps

Teaching methods appropriate to the objectives will be used. These include:

- Mental methods and strategies
- Demonstration and explanation by the teacher
- Discussion between the teacher and the pupils, and between pupils
- Practical work to provide a real context
- Practice, to reinforce skills which have been learned
- Problem solving and investigation in which skills can be applied

Pupils are taught to record their work in a variety of ways, using mathematical jottings leading to more formal written methods. These include numbers, symbols, words (written and verbal), patterns, diagrams, graphs, models, maps and computer software.

## **LINKS BETWEEN MATHEMATICS AND OTHER SUBJECTS**

Mathematics contributes to many subjects within the primary curriculum, particularly scenic and geographic. Opportunities will be sought to draw mathematical experience out of a wide range of activities. This will allow children to use and apply mathematics in real contexts.

## **INFORMATION AND COMMUNICATION TECHNOLOGY**

Children are taught the relevance and effectiveness of ICT in mathematics and to compare computer with pencil and paper methods. Children become aware of the correct use of calculators in years 1 to 4 and they are regularly used for specific tasks in years 5 and 6.

The strands of ICT to be developed during mathematics lessons are:

- Data Handling: use of data bases, spreadsheets and other graph drawing packages.
- Modelling: programming with Bee-Bot, Roamer and Logo

## **HOMEWORK**

We encourage parents to work with their children on homework activities. This could be practising number bonds, multiplication and division facts or learning to tell the time. As children progress through the school they will be given more formal activities to work on at home, to reinforce and extend class work.

## **ASSESSMENT**

Each child is being continually assessed by the teacher and assessment activities are planned accordingly. Once every 2 terms children will be formally assessed, using materials provided by Abacus Evolve or past National Test Papers. This tracks pupils' progress to ensure they achieve their end of year targets. Children in Years 2 and 6 are formally assessed at the end of the Key Stages. In Term 6 children in Years 3, 4 and 5 undertake Optional SATs.

## **THE ROLE OF THE MATHEMATICS SUBJECT LEADER**

The main task of the Subject Leader is to support class teachers and so improve the quality of mathematics teaching and learning throughout the school. The Subject Leader is responsible for:

- Monitoring the implementation of the Renewed Framework for Mathematics
- Monitoring the quality and standards of the teaching and learning of mathematics through appropriate, agreed methods
- Analysing results of formal tests
- Supporting colleagues and keeping them informed
- Leading INSET
- Providing advice about the framework, maths policy and teaching scheme
- Managing the budget for maths resources
- Helping to promote liaison between schools
- Encouraging parents to be involved in their children's learning
- Keeping up-to-date, through reading, attending courses, developing links with the Maths Advisor, Numeracy Consultant, Maths Teacher from Charters School and other sources of expertise beyond the school
- Writing an annual Mathematics Plan
- Preparing a report on mathematics for Governors.

Agreed by FGB March 2009

Next Review March 2012