



MATHEMATICS POLICY

1 AIMS AND OBJECTIVES

Mathematics teaches us how to make sense of the world around us through developing a child's ability to calculate, reason and solve problems. It enables children to understand and appreciate relationships and pattern in both number and space in their everyday lives.

The aims of mathematics are:

- To promote enjoyment and enthusiasm for learning through practical activity, exploration and discussion
- To promote confidence and competence with numbers and the number system
- To develop the ability to solve problems
- To develop a practical understanding of the ways in which information is gathered and stored
- To explore features of shape and space, and develop measuring in a range of contexts
- To understand the importance of mathematics in everyday life

2 TEACHING AND LEARNING

The school uses a variety of teaching and learning styles in mathematics lessons to develop the children's knowledge, skills and understanding. The children are encouraged to apply their learning in everyday situations.

The daily mathematics lesson has a high proportion of whole-class interactive teaching. Children are encouraged to use a variety of methods and to explain these to others. They are also encouraged to ask questions. There is also an emphasis on the correct use of vocabulary. There is a strong emphasis on developing mental and written calculation, and using and applying and problem solving strategies. Children have the opportunity to use a wide range of resources to support their learning. ICT is used in mathematics lessons to enhance the children's learning.

Work is differentiated to suit the needs of the various levels of ability within a class or set. Differentiation may be by tasks, outcome, resources provided or support given. Children may work individually, with a partner or in a group. Some children will be supported by a teaching assistant where necessary. We ensure that work is matched to the needs of each child.

- In Reception and Year 1 the children are taught in class groups
- In Year 2 the children are in ability sets for three days and class groups for two days a week]
- In year 3 – 6 the children are taught in ability sets.

3 PLANNING

Mathematics is a core subject in the National Curriculum, and we use the Renewed Framework for teaching maths as the basis for implementing the statutory requirements of the programme of study for mathematics.

Long Term Planning

The Renewed Framework for teaching mathematics gives a detailed outline of what we teach in the long term, while the teaching programme identifies the key objectives in mathematics that we teach in each year.

Medium Term

Our medium-term plans, which are adopted from the Renewed Framework for teaching mathematics, give details of the main teaching objectives for each unit and define what we teach. They ensure an appropriate balance and distribution of work across each year. These are adjusted according to the needs of the class or set. The medium term plans are regularly reviewed by the maths co-ordinator.

Short Term

The teacher for the class or maths set completes the weekly plans for the teaching of mathematics. These weekly plans show the specific learning objectives for each lesson and give details of how the lessons are to be taught. The short term plans are regularly reviewed by the maths co-ordinator.

For consistency we all use an agreed planning format that consists of the following elements:

- Oral/mental starter
- Main teaching activity with 3 levels of differentiation
- Assessment for learning
- Success Criteria
- Homework

4 FOUNDATION STAGE

In the Foundation stage we relate the mathematical aspects of the children's work to the objectives set out in the Early Learning Goals, linked to the NNS, which underpin the curriculum planning for children aged three to five. We give the children opportunities to develop their understanding of number, measurement, pattern, shape and space through varied activities that allow them to enjoy, explore, practise and talk confidently about mathematics.

5 CROSS CURRICULAR LINKS

Links with other subjects are made wherever possible. Children are expected to use and demonstrate their skills in mathematics through other areas of the curriculum such as science, geography, art and ICT. Where possible links are also made to topic work.

For example:

- Draw and interpret graphs in geography
- Study famous mathematicians in able maths sessions
- Roman, Greek or Egyptian activities during Maths week
- Construct or interpret charts and tables in science

6 SPECIAL EDUCATIONAL NEEDS

Mathematics forms part of the school curriculum policy to provide a broad and balanced education to all children, including the lower achievers and the more able. Through mathematics teaching we provide learning opportunities that we enable all pupils to make progress. We do this by setting suitable learning challenges and responding to each child's individual needs. Assessment against the National Curriculum allows us to consider each child's attainment and progress against expected levels. When progress falls significantly outside the expected range, the child may have special educational needs.

7 ASSESSMENT AND RECORDING

We assess children's work in the long, medium and short-term.

Short Term

We make short-term assessments which we use to help us adjust our daily plans. These may be in note form or just informal observations.

Medium Term

We make medium-term assessments to measure the progress against the key objectives in the Renewed Framework for teaching mathematics. We use the class/set record of key objectives as a recording format for this. Assessments are made on a regular basis at the end of each unit so that these can be used when planning future units.

Each term progress is recorded on the West Sussex tracking document.

Long Term

We make long-term assessments towards the end of the year, and we use these to assess progress against school and national targets. This will then inform our targets for the next school year. We make long-term assessments with the help of end-of-year tests and teacher assessments. We use national tests in Years 2 and 6, plus the optional tests for children at the end of Years 3, 4 and 5. The results are used for data analysis which can inform school targets.

8 RESOURCES

There is a wide range of resources to support the teaching of mathematics across the school.

All resources used for teaching areas of mathematics such as shape, space, measures, time and fractions are stored centrally for shared KS1 and KS2 use.

9 HOME/SCHOOL LINKS

There are many links between school and home in mathematics. At the beginning of the year teachers give a brief talk about mathematics as part of the general meeting for parents of children in different year groups.

Children take home regular homework with some opportunities for feedback from parents. Children have a termly list of objectives that they are working on to enable parents to support them at home.

10 MONITORING

Monitoring of the standards of children's work and the quality of teaching in mathematics is the responsibility of the mathematics co-ordinator and the Senior Management Team. This may take the form of observations, interviews with pupils, study of work samples and analysis data.

The work of the mathematics co-ordinator also involves supporting colleagues in the teaching of mathematics, being informed about current developments, and providing a strategic lead and direction for the subject in the school.

Reviewed: Spring 2009

Governor Signature: **Date**

Next Review Due: