

**THE ELLIS C OF E HEMINGFIELD**  
**PRIMARY SCHOOL**

**MATHEMATICS POLICY**

**Philosophy**

This policy outlines the teaching, organisation and management of the mathematics taught and learnt at The Ellis Primary School. The school's policy for mathematics is based on the 2014 New National Curriculum for mathematics teaching from Foundation Stage to Year 6. The policy has been drawn up as result of staff discussion and has full agreement of the Governing Body. The implementation of this policy is the responsibility of all the teaching staff.

**The Nature of Mathematics**

Mathematics is a tool for everyday life. It is a whole network of concepts and relationships which provide a way of viewing and making sense of the world. It is used to analyse and communicate information and ideas and to tackle a range of practical tasks and real life problems. It also provides the materials and means for creating new imaginative worlds to explore.

**Aims and Objectives**

In our Mathematics teaching we aim to develop:

- A positive and enthusiastic attitude towards mathematics and a fascination of the subject;
- Mathematical understanding through practical tasks, enquiry and understanding;
- Competence and confidence in mathematical knowledge, concepts and skills;
- An ability to solve problems, to reason, to think logically and to work systematically and accurately;
- Initiative and an ability to work both independently and in cooperation with others;
- An ability to communicate mathematics;
- An ability to use and apply mathematics across the curriculum and in real life;
- An understanding of mathematics through practical tasks and process of enquiry and experiment;
- And ensure a progressive development of mathematical concepts, knowledge, skills and attitudes.

**Planning**

Teachers in Foundation Stage base their teaching on objectives from the 'Early Learning Goals for Mathematical Development' and The New 2014 Curriculum for the children working beyond.

In Key Stage 1 and 2 teachers plan for the teaching of mathematics using the

medium term plans we have adapted for our individual classes based on the New Curriculum guidance. Teachers use Numicon and The Abacus Evolve resources to support the units of work and weekly lessons. This is then supplemented using a range of other resources ie cuisinere rods etc

### **Cross-curricular Planning**

For each lesson, teachers plan specific learning intentions and success criteria based on developing children's skills, knowledge and understanding in each mathematical area. Where possible teachers make links between subjects to provide experiences that enrich learning and to consolidate and apply the skills that the children have learnt in a variety of contexts. Mathematics contributes to many subjects within the primary curriculum and opportunities will be sought to draw mathematical experience out of a wide range of activities. This will allow children to begin to use and apply mathematics in real contexts.

### **Teaching and Learning**

To provide adequate time for developing mathematical skills each class teacher will provide a daily mathematics lesson. These may vary in length but will usually last for about 45 to 60 minutes. Additional mathematics may be taught within other subject lessons when appropriate.

In the Foundation Stage mathematics is taught through a range of learning contexts with shorter focused activities. Towards the end of Foundation Stage teachers aim to draw the elements of a daily mathematics lesson together so that by the time children make the transition into Year 1 they are familiar with the 45 minute lesson.

From year 1, all pupils will have a dedicated daily mathematics lesson. Within these lessons there will be a good balance between whole-class work, group teaching and individual practice.

### **A Typical Lesson**

A typical 45 to 60 minute lesson in Year 1 to 6 will be typically structured like this however there will be opportunities or requirements for mini-plenaries throughout to address misconceptions or to develop further understanding:

- Oral work and mental calculation. This will involve whole-class work to rehearse, sharpen and develop mental and oral skills.
- The main teaching activity. This will include both teaching input and pupil activities and a balance between whole-class, grouped, paired and individual work.
- A plenary. This will involve work with the whole class to address misconceptions, identify progress, summarise key facts, make links to other work and to discuss next steps.

### **Recording of Pupil Work**

There are occasions when it is not necessary to record mathematics in a permanent form, but there are also occasions when it is both quick and convenient to carry out written calculations. It is also important to record aspects of mathematical investigations. Children are taught a variety of methods for recording their work and they are encouraged and helped to use the most appropriate and convenient method of recording for themselves.

Recording work may involve children making rough jottings first, followed by recording actual answers for the teacher's attention. All children are encouraged to work tidily and neatly when recording their actual answers but jottings may take any form and are important evidence for the teacher.

The school has developed a progression for written calculation which is available to all teachers, teaching assistants and parents.

### **Resources**

Mathematics resources are held in individual classes but are shared between year groups in order to ensure that pupils' needs are met. The school has recently purchased Numicon equipment and is in the process of implementing them regularly into lessons to develop understanding for children who require support with the concept of numbers.

### **Assessment**

Assessment of pupil work and progress is ongoing by the class teacher and informs future planning. Teachers mark work in mathematics in line with the school marking policy.

Teachers gather evidence of learning over the course of the half-terms, together with any evidence from teacher observations. Teachers use this information to inform further planning for groups and individual pupils.

Individual's progress is measured against targets in the planning every half term. The school is currently working towards a level less system.

Statutory assessments are made at the end of Foundation Stage and end of Key Stage 1 and 2, and optional assessment in years between. Parent/teacher discussions are held each term and they receive an annual report at the end of the year which outlines a child's attainment against age related expectations and receive a comment about relative progress in mathematics.

### **Equal Opportunities**

All teaching and support staff at The Ellis Primary School are responsible for ensuring that all children, irrespective of gender, ability, ethnic origin and social circumstances, have access to the whole curriculum and make the greatest possible

progress.

Day-to-day monitoring of the mathematics policy, and the provision of equal opportunities in Mathematics is the responsibility of the class teacher.

### **Special Educational Needs**

Within the daily mathematics lesson teachers aim to provide activities to support children who find mathematics difficult. Children with SEN are taught within the daily mathematics lesson and are supported to access learning in all lessons. Where applicable, children's IEPs include suitable objectives and teachers keep these objectives in mind when planning work.

When support staff are available to groups or individual children, they work collaboratively with the class teacher. The support teacher feeds back to the class teacher when appropriate to inform evaluations, assessment and future planning.

The school uses a range of intervention programmes with groups and individuals as appropriate. Those include Maths Marvellous Maths at Key Stage 1 and Securing Levels in Mathematics at Key Stage 2.

### **More able, Gifted and Talented**

The school is currently using a system of streaming ensure the more able children in mathematics are being challenged.

Quality first teaching ensures effective differentiation is used through outcome, support, and resources to meet the needs of the more able. Sometimes this is also achieved by the lesson input that is given to different groups by the teacher or a teaching assistant. When working with the whole class, teachers will direct questions towards the more able (at their ability level) to maintain their involvement. Children who have been identified as more able are given opportunities to extend their learning through problem solving, investigation and open-ended activities.

Opportunities are created for them to work independently and with others to develop higher order thinking skills.

### **Homework**

All classes receive maths homework. In Key Stage 1 this will often take the form of games or key number facts to learn. In Key Stage 2 children may be given either a mental, written or problem solving activity to complete.

### **Roles and Responsibilities**

The Role of the Headteacher:

The overall responsibility for each subject rests with the senior management of the school. The Head, in consultation with the staff:

- determines a curriculum that is inclusive to all;
- decides the provision and allocation of resources;
- decides ways in which progress can be assessed, and records maintained;
- ensures that each subject is used in a way to achieve the aims and objectives of the school;
- ensures that there is a subject policy, and identifies a subject co-ordinator.

### **Role of the co-ordinators:**

- ensure teachers are familiar with the framework and help them to plan lessons;
- lead by example in the way they teach in their own classroom;
- prepare, organise and lead INSET, with the support of the Headteacher;
- work co-operatively with the SENCO;
- observe colleagues from time to time with a view to identifying the support they need;
- attend relevant courses to keep up to date
- organise maths workshops for parents with external body
- discuss regularly with the Headteacher and Numeracy governor the progress of implementing the Strategy in the school.

### **The Role of the Teacher:**

Individual teachers are responsible for the implementation of each subject policy. It is their responsibility to plan appropriate experiences that teach key skills while developing children's knowledge and understanding. Teachers are responsible for assisting the co-ordinator in the monitoring and recording of pupil progress in each subject. Individual teachers are expected to undertake training in mathematics as identified.

### **Evaluation**

Evaluation and review of the policy for mathematics and any schemes of work take place regularly. The whole staff works together to suggest any changes or adaptations of policy which are then discussed and if necessary, the policy document is amended. Throughout the year the whole staff are encouraged to feed back information and ideas. This may include comments on work the children are undertaking, comments on the availability and suitability of resources and any other relevant comments about the overall structure of the Mathematics Scheme of Work.

This policy was drawn up by the Maths coordinator in consultation with the staff.

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