BRIZE NORTON PRIMARY SCHOOL

MATHEMATICS POLICY

This policy was adopted by the Governing Body on 26th January 2012.

Review Date Planned	Review Date	Date adopted by Governing Body
26th January 2015		

Philosophy

This policy outlines the teaching, organisation and management of the mathematics taught and learnt at Brize Norton Primary School. The school's policy for mathematics is based on 'The Renewed Framework for teaching mathematics from Foundation Stage to Year 6 (2006).' 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.

Ai ms and Objectives

Using the Programmes of Study from the National Curriculum and the Renewed Framework for Teaching Mathematics (2006) it is our 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 in the Primary Framework for Foundation Stage; this ensures that they are working towards the 'Early Learning Goals for Mathematical Development'.

In Key Stage 1 and 2 teachers plan for the teaching of mathematics using the Primary Framework and the National Curriculum.
Teachers adapt each mathematical unit to the needs of their class and use a range of materials when planning their units of work and weekly lessons.
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.

Teaching and Learning

To provide adequate time for developing mathematical skills each class teacher will provide a daily mathematics lessons at least 4 times each week, lasting between 45 and 60 minutes. Every other week each class holds a big maths session that lasts the morning to relate taught skills to problem-solving and practical activities in support of developing cohesive links between different areas of maths (especially Ma1).

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 at least 4 days per week. 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 structured like this:

- 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, and to 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.

Links between mathematics and other subjects

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.

Resources

All mathematics resources are held centrally outside Class 3. The coordinators hold a full list of resources in school.

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 use the APP (Assessing Pupil Progress) tool of the Primary Framework to track pupil progress. APP allows teachers to level children's progress in mathematics, gathering evidence over the course of the year. Teachers use this information to inform planning for groups and individual pupils.

Children are encouraged to self and peer-assess their work during lessons (and over the course of a unit) in order to develop their learning skills and use of mathematical language.

In the core subjects, statutory assessments are made at the end of Foundation Stage and end of Key Stage 1 and 2. Parent/teacher discussions are held each term and they receive an annual report at the end of the year.

Equal Opportunities

All teaching and non-teaching staff at Brize Norton 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.

All children have equal access to the Mathematics Curriculum and its teaching and learning throughout any one year. 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 from the Renewed Numeracy Framework and teachers keep these objectives in mind when planning work.

When educational support staff are available to support 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.

All children who find mathematics difficult have daily access to the RM Maths program. The school also uses a range of intervention programmes with groups and individuals as appropriate.

More able, Gifted and Talented

For the majority of the week the more able children in mathematics will be taught with their own class and stretched through differentiated group work and extra challenges. Teachers plan using a 'top down' approach to ensure that the more able are challenged and the expectations are high for all children. Differentiation may be by outcome, support, resource or sometimes 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, gifted and talented are given opportunities to extend their learning through problem solving, investigation and open-ended activities. We create possibilities for them to work independently and with others to develop higher order thinking skills.

External challenges and competitions for gifted and talented children are organised where possible and appropriate.

Homework

All classes receive maths homework each week. 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. Children in Key Stage 2 are also given multiplication and division facts to learn each week.

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 is 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 coordinators in consultation with the staff.
January 2012