



Benington C of E Primary School

WHOLE SCHOOL POLICY FOR MATHEMATICS

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1 THE POLICY STATEMENT

Our aim is to provide a Mathematics curriculum and a range of teaching and learning styles which will develop our pupils' confidence and competence and address the National Curriculum's key aims of Fluency, Problem Solving and Reasoning. They should learn to apply their mathematical understanding, knowledge and skills in practical ways and experience the power of mathematics to solve "real life" problems. We should foster a positive attitude and enjoyment of mathematics. Pupils are encouraged to secure their reasoning skills all the way through school and are extended by thinking broader and deeper about the maths skills and concepts they study. A growth mindset is encouraged.

2 A CURRICULUM OVERVIEW

In the Foundation Stage:

Mathematical understanding should be developed through stories, songs, games and imaginative play. Pupils should learn to count using numbers in familiar contexts and recognise numbers to at least 9. They should talk about creating simple patterns, begin to understand the concepts of addition and subtraction, describe the shape and size of solid and flat shapes, use everyday words to describe position and use early maths to solve problems. This should be built upon cross-curricular links and practical activities.

In Key Stage 1:

Pupils should develop their knowledge, skills and understanding through practical activity, exploration and discussion. They should learn to count, read, write and order numbers to 100 and beyond and develop a range of mental calculations strategies. They should learn about shape and space through practical activities which build on their understanding of the immediate environment. They should begin to grasp mathematical language, using it to talk about their methods and explain their reasoning.

In Key Stage 2:

Pupils should use the number system more confidently and develop number sense. They should develop fluent calculating strategies and try to tackle problems with mental methods before using any other approach. They should become more secure in using formal written methods for the four operations. They should explore features of shape and space and develop measuring skills in a range of contexts. They should discuss and present their methods and reasoning in a wider range of mathematical language, diagrams and charts and have the opportunity to problem solve daily. There is a greater emphasis on Maths investigations and challenges.

3 SCHEME OF WORK

Our mathematics curriculum is based on The National Curriculum, Mathematics, the Curriculum for the Foundation Stage and the Primary National Strategy. The New Framework for Teaching Mathematics from Reception to Year 6 and the stepping stones leading to the Early Learning Goals are the basis for our programmes of study and the structure upon which our year plans, termly plans and weekly plans are based.

4. TEACHING AND LEARNING

Teaching time

To provide adequate time for developing mathematical skills each class teacher will usually provide a daily mathematics lesson. This may vary in length but will usually last for about 45 minutes in Key Stage 1 and 50 to 60 minutes in Key Stage 2. Links will also be made to mathematics within other subjects so pupils can develop and apply their mathematical skills. Regular opportunities to undertake problem solving and mastering tasks will be provided to add depth to pupils understanding. Pupils will be encouraged to reason as a matter of course. Teaching will be in line with our Calculation Policy with a range of concrete materials, visual representations and strategies employed.

Class organisation

From Year 1, all pupils will usually 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 – 5 will usually be structured like this:

♦Oral work and mental calculation (about 5 to 10 minutes)

This will involve whole-class work to rehearse, sharpen and develop mental and oral skills.

♦The main teaching activity (about 30 to 40 minutes)

This will include both teaching input and pupil activities and a balance between whole class, grouped, paired and individual work.

♦A plenary (about 10 to 15 minutes)

This will involve work with the whole class to sort out misconceptions, identify progress, to summarise key facts and ideal and what to remember, to make links to other work and to discuss next steps.

5. HOME ACTIVITIES

Home activities in mathematics should support and extend the work that pupils do in class. They should practise and consolidate their key skills such as learning times tables, and support the school's homework policy.

This may involve:

- Activities which makes use of the home context
- Using a number game or puzzle
- Learning some number facts
- Gathering data for the next lesson
- Thinking about a problem

- Preparing a presentation to the class.

The activities should offer good opportunities for children to share work with their families.

6. ASSESSMENT

The termly plans identify time for assessment and review. This should be planned into each half term's work to give evidence of pupils' achievement. It should be used to inform the next term's planning to create continuity in pupils' learning, and provide an overview to the Maths co-ordinator. Records will be kept in line with Herts Assessment Guidance.

Optional SATs in mathematics are used in each year of Key Stage 2 to assess pupils' achievement.

The aim of all the work in mathematics is to create a classroom ethos where pupils discuss their work with teachers, TA's, classroom assistants and their peers. They should develop accurate use of mathematical language, efficient calculation strategies, and a flexible approach to solving problems and appreciate the importance of collecting and interpreting data. From concrete experiences, through the use of mental images, they should develop the visualisation skills that allow them to use their mathematical knowledge, skill and understanding effectively.

7. RESOURCES AND EQUIPMENT

At Benington irregularly used equipment is stored in a central resources cupboard in the staff room. Each classroom is stocked with appropriate mathematical apparatus that may be used by the children on a regular basis. The school is currently trialling HfL Essentials Maths resources as a basis for planning but also has two mathematics schemes available to Key Stage 2 teachers, Abacus and Collins. Teachers may use these schemes to support their teaching.

8. ROLE OF THE MATHEMATICS CO-ORDINATOR

- 3** To be a role model and demonstrate good practice
- ✚ To purchase, organise and maintain teaching resources
 - ✚ To assist with diagnosis and remediation of learning difficulties
 - ✚ To manage a delegated budget and keep spending within it
 - ✚ To encourage and assist in-service training
 - ✚ To keep up-to-date by attending courses and feedback sessions organised by the Local Education Authority, Cluster groups or other colleagues
 - ✚ To provide guidance and support in implementing NC and schemes of work
 - ✚ To offer specialist advice and knowledge for special needs and gifted pupils
 - ✚ After consultation, to co-ordinate recording and presentation throughout the school
 - ✚ To advise the Headteacher of action required (e.g. resources, standards etc.)
 - ✚ To encourage ways of involving parents in their children's learning
 - ✚ To promote liaison between schools (moderation etc.)
 - ✚ To monitor the planning and delivery of the subject
 - ✚ To review half termly assessment data.

The overriding task must be to provide support for all who teach mathematics and so improve the quality and continuity of mathematics teaching and learning throughout the school.

