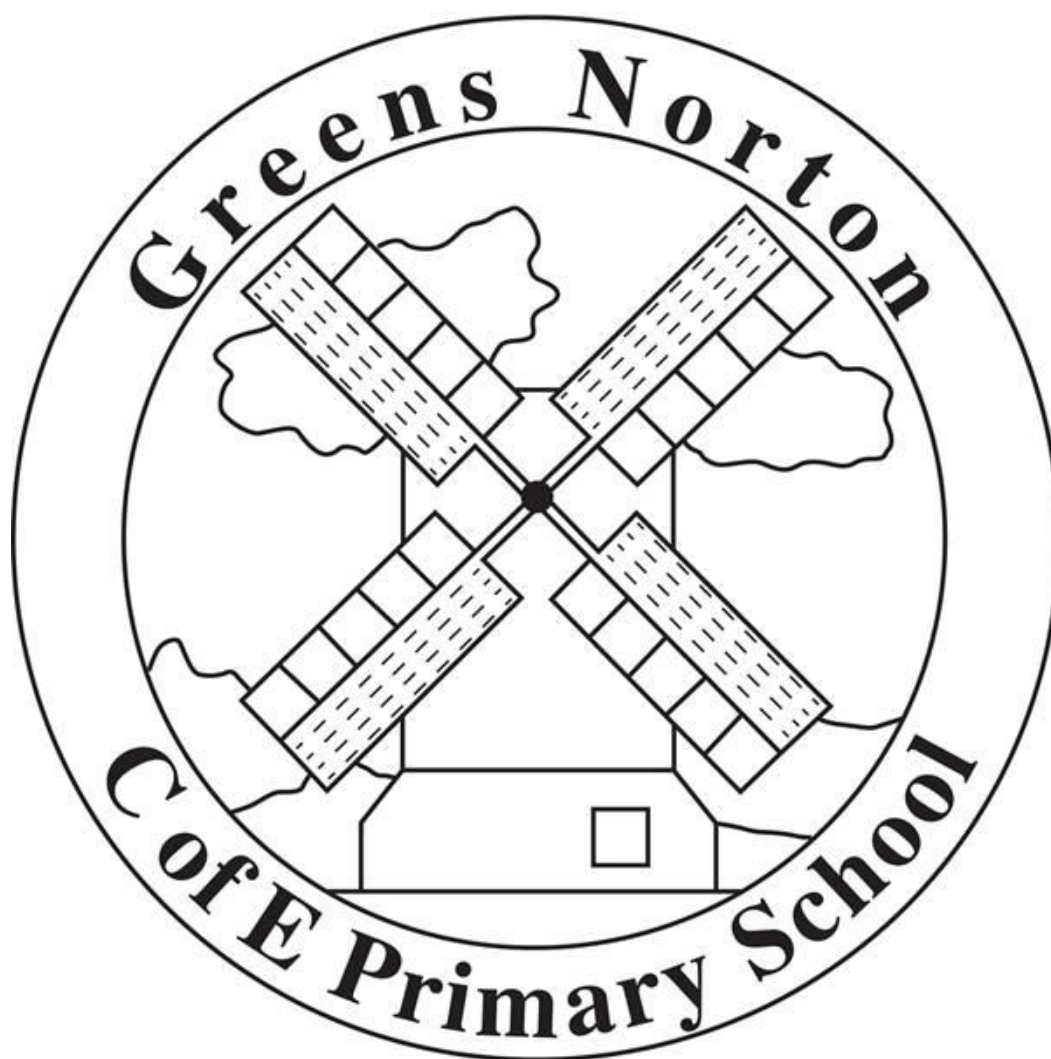


Greens Norton C of E Primary School



Policy for Mathematics

'In our school everyone can join in with all we offer'

Approved by

David Ward
Chair of Governors

Mrs Jan Pickering
Head Teacher

Date of ratification: 14 July 2011
Review Date: July 2015

1 Aims and objectives

- To provide all children with the basic mathematical skills which they will need for everyday life.
- For all children to develop a positive attitude to mathematics, using maths confidently and competently.
- To develop their skills, understanding and enjoyment in mathematics by setting practical activities and asking children to solve relevant and meaningful problems.
- To promote developing skills of mental calculation.

2. Implementation

In the National Curriculum mathematics is set down under four headings called Attainment Targets, which are:

Ma 1 – using and applying Mathematics

Ma 2 – Number and Algebra

Ma 3 – Shape, Space and Measure

Ma4 – Handling Data

The Programmes of Study set out in the Statutory Orders and the School Calculation Policy form the content of the school curriculum for mathematics and the activities the children undertake are planned from these.

Framework units and assessing pupil progress forms (APPs) are used as basic resource for planning the children's work but other commercial resources are also used as a source of ideas for teachers reference and as pupil's material as appropriate.

3. Key Stages

3.1 Foundation Stage

As the class is part of the Foundation Stage of the National Curriculum, we relate the mathematical aspects of the children's work to the objectives set out in the Early learning Goals. These underpin the curriculum planning for children aged three to five. All children are given ample opportunity to develop their understanding of number, measurement, pattern, shape and space through varied activities and structured play that allows them to enjoy, explore, practise and talk confidently about mathematics. During the summer term the children are prepared for the more formal daily mathematics lesson in line with Key Stage 1 work.

3.2 Key Stage 1

Key Stage 1 has the essential items of equipment for everyday use, accessible for all children in their classrooms.

Children are encouraged to record their work in a variety of ways which may be symbolic, graphic, written, pictorial, constructed or verbal. The teacher will select the

appropriate classroom organisation for the task which will include whole class teaching, small group work and individual work. Key Stage 1 lessons broadly follow the National curriculum requirements with a mental/oral work, a main teaching activity and plenary session/s.

3.3 Key Stage 2

Key Stage 2 lessons follow the National Curriculum requirements and will usually include a mental/oral work, a main teaching activity and plenary session/s.

The children's knowledge and understanding of the concepts in Key Stage 1 are extended and refined.

4. Mathematics Curriculum Planning

Mathematics is a core subject in the National Curriculum and we continue to use the National Numeracy Strategy as a basis for implementing the statutory requirements of the programmes of study.

Long term planning follows the unit plan objectives as set out in the National Numeracy Framework. Then teachers produce shorter term plans based on individual unit objectives and assessing pupil progress forms (APPs). These unit plans list the specific objectives for each lesson and give details on how it is taught.

Individual lesson plans are produced when a lesson is being observed or when teachers engage in lesson study and plan lessons together..

Children's learning styles are accounted for when planning mathematical experiences.

4 The contribution of Mathematics to teaching in other curriculum areas using key skills

4.1 English (key skill: communication/interpretation)

Mathematics contributes significantly to the teaching of English in our school by actively promoting the skills of reading, writing, speaking and listening. For example we encourage children to read and interpret problems in order to identify the maths involved. The children explain and present their work to others. Younger children enjoy stories that rely on counting and sequencing. Older children encounter mathematical vocabulary, graphs and charts when using non-fiction texts.

4.2 Science (key skill: application of number/analysis)

Mathematics is used in Science, to record data (graphs and charts), measure and time the outcomes of experiments and observe patterns and trends that occur.

4.3 Information and Communication Technology (ICT) **(Key skill: ICT and problem solving)**

Children use and apply mathematics in a variety of ways when solving problems using ICT. Younger children use ICT to communicate results with appropriate mathematical symbols. Older children use it to produce graphs and tables when explaining their results or when creating repeated patterns, such as tessellations. When working on control, children use standard and non standard measures for distance and angle. They use simulations to identify patterns and relationships.

4.4 Personal, Social and Health Education (PSHE) and citizenship (key skill: improving our own learning and performance and working with others)

Mathematics contributes to the teaching of PSHE and citizenship. The work the children do outside their normal lesson encourages independent study and helps them to become increasingly responsible for their own learning. The planned activities within the classroom encourage them to work together and respect each other's views.

4.5 Spiritual, moral, social and cultural development

The teaching of mathematics supports the social development of our children through the way we expect them to work with each other in the lessons. We group children so that they work together, and we give them the chance to discuss their ideas and results.

5 Inclusion

5.1 Mathematics forms part of the school curriculum policy to provide a broad and balanced education to all children. Through our Mathematics teaching we provide exciting learning opportunities that enable all pupils to make progress. We do this by setting suitable learning challenges and responding to each child's different needs. Assessment, using APP's, against the National Curriculum allows us to consider each child's attainment and progress against expected levels. Opportunity will be found for more able children to extend their mathematical understanding. Teachers provide encouragement to all pupils to boost self-esteem whenever they can. Levels of confidence are critical in helping children to become successful mathematicians.

5.2 When progress falls significantly outside the expected range, the child may have special educational needs. Our assessment process looks at a range of factors – classroom organisation, teaching materials, teaching style, and differentiation – so that

we can take some additional or different action to enable the child to learn more effectively. This ensures that our teaching is matched to the child's needs.

5.3 We enable pupils to have access to the full range of activities involved in learning mathematics. Where children are to participate in activities outside the classroom, we carry out a risk assessment prior to the activity, to ensure that the activity is safe and appropriate for all pupils.

6. Assessment and Recording

Assessments in mathematics are made in line with the school's policy for Assessment and Feedback.

Teachers make ongoing assessments, using assessing pupil progress forms (APP's), in the areas of mathematics on which they are focusing and record them for every child. These are moderated internally and using the optional SATs during the final term.

7. Resources

There are a range of resources to support the teaching of mathematics across the school. All classrooms have number lines and a wide range of small apparatus. Mathematical dictionaries, calculators, visual aids and large equipment are stored centrally. A range of software and interactive programmes are available to support work with the computers. Resources are renewed yearly within budget provision.

8. Monitoring and Review

Monitoring of the standards of children's work and the quality of teaching is the responsibility of the Leadership Team, the Maths Governor and the subject leader. The Headteacher allocates regular time to the subject leader so that he/she can review samples of children's work and undertake lesson observations and pupil interviews across the school.

9 The role of the Subject Leader

It is the responsibility of the Maths subject leader to:

- write and update the curriculum policy for Maths; produce and monitor the long-term curriculum map to ensure coverage of the scheme of work for Maths;
- aid colleagues with the planning and delivery of lessons when required;
- maintain a portfolio of children's work and use these to demonstrate what the expected level of achievement is in the Maths units of study for each age group in the school;
- monitor and review standards of Maths teaching through e.g. lesson observations, coaching techniques;
- produce an annual report reflecting on the standards of provision for Maths and to set targets accordingly;

- review and order resources to enable the delivery of the Maths curriculum.

10. Health and Safety

The correct use of any equipment is emphasised and demonstrated at every opportunity to ensure safe and appropriate practice.