

Broad Chalke CE VA Primary School

Mathematics Policy

Mission Statement: 'With the love of God we learn, care, grow and share.'

Intent - Aims & Objectives

Mathematics teaches us how to make sense of the world around us through developing our ability to calculate, to reason and to solve problems. It enables us to understand and appreciate relationships and patterns in both number and space in everyday life. Children learn to appreciate the contribution made by mathematics to all aspects of life.

The aims of teaching 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 through decision-making and reasoning in a range of contexts.
- To explore features of shape and space, data handling and develop measuring skills in a range of contexts.
- To understand the importance of mathematics in everyday life.

Implementation - Teaching and Learning Style

The school uses a variety of teaching and learning styles in mathematics lessons. Our principal aim is to develop children's knowledge, skills and understanding in mathematics. We do this through a daily lesson that has a high proportion of whole-class and group-direct teaching. During these lessons we encourage children to ask as well as answer mathematical questions. They may work alone, in pairs or as a group. They have the opportunity to use a wide range of resources such as number lines, number squares, digit cards and small apparatus to support their work. Children use ICT in mathematics lessons where it will enhance their learning, as in modelling ideas and methods. Wherever possible, we encourage the children to use and apply their learning in everyday situations.

In all classes there are children of differing mathematical ability; we recognise this fact and provide suitable learning opportunities for all children by matching the challenge of the task to the ability of the child. We achieve this through a range of strategies – in some lessons through differentiated work and in other lessons by organising the children to work in pairs on open-ended problems or games. We use teaching assistants to support some children and to ensure that work is matched to the needs of individuals.

Implementation - Mathematics Curriculum Planning

Each class teacher will plan, teach and assess numeracy in line with the National Curriculum. We take our medium-term mathematics plans from the White Rose planning (Y1-6) and Hamilton Trust / NCETM Boolean hub (YR), using the blocked approach of planning and teaching. The White Rose gives details of the main teaching objectives for each term and defines what we teach, using a mastery approach where the children are kept together on the same learning objective, rather than moving on at different paces. Classroom Secrets differentiated worksheets for fluency and reasoning/problem solving ensure that all children can access the learning. Class teachers complete the weekly plans for the teaching of mathematics. These weekly plans list the specific learning objectives for each lesson and give details of how lessons are to be taught. Planning for mathematics is incorporated into the weekly plan or teachers may use and adapt the White Rose plans. The weekly plan is copied to the network.

EYFS

In EYFS we relate mathematical aspects of the children's work to the objectives set out in the Early Learning Goals, which underpin the curriculum planning for children aged 16 months to 60 months. We give all the children ample opportunity 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.

Contribution of mathematics to teaching in other curriculum areas

English

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

ICT

Children use and apply mathematics in a variety of ways when solving problems using ICT. Children use ICT to communicate results with appropriate mathematical symbols. They may use it to produce graphs and tables when explaining their results or when creating repeating patterns. They use mathematical games on computers and iPads to enhance their learning and to practice skills. Children also use ICT for data handling / logging, monitoring and control (including learning about angles of turn).

Personal, Social and Health Education (PSHE) and Citizenship

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

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 lessons. We group children so that they work together, and we give them the chance to discuss their ideas and results.

Teaching mathematics to children with special needs

It is the school policy to provide a broad and balanced education to all children. We provide learning opportunities that are matched to the needs of children with learning difficulties. Work in mathematics takes into account the targets set for individual children in their My Support Plans (MSPs). Where appropriate, children may have extra individual mathematics work outside the Numeracy lessons in the form of booster or pre-teaching sessions.

Assessment and recording

We assess children's work in mathematics from three aspects (long-term, short-term and medium-term). We make short-term assessments which we use to advise our daily plans. These short-term assessments are closely matched to the learning objectives. We make medium-term assessments to measure progress against the key objectives, and to help us to plan the next unit of work. We use the children's individual records of the key objectives as the recording format for this on our Insight system. A summative assessment of skills will be carried out at the end of each term i.e. once a long term. We make these formal assessments 3 times a year, and we use these to assess individual progress. Teachers use the White Rose assessment to check progress and will use this information to form part of the judgement that they will input to Insight in order to track progress across the school. We

then set targets for the next school year using the child's current attainment and also referencing EYFS and KS1 data and make a summary of each child's progress (before discussing it with parents). We pass this information on to the next teacher at the end of the year, so that he/she can plan for the new school year. We use the national tests for children in Year 2 and Year 6 to make comparisons against school and national targets plus the White Rose assessments at the end of Years 3, 4 & 5. A sample of books from Years 2 and 6 are kept as evidence at the end of each academic year. Teachers meet once a term to review the progress of pupils throughout the school, or to moderate work together.

Resources

There is a range of resources to support the teaching of mathematics across the school. All classrooms have a range of appropriate small apparatus, games and equipment. Larger resources are kept in the central area. A range of mathematical software is also available on the network.

Impact - Monitoring and Review

The Headteacher, the Numeracy subject leaders and the Governor with the responsibility for Numeracy undertake monitoring. Subject leaders prepare a position statement to review impact yearly.

Ratified by FGB: March 2014

Reviewed: Spring 2019

Next Review due: March 2021