

BREDHURST CHURCH OF ENGLAND (VC) PRIMARY SCHOOL

MATHS POLICY

March 2024

(Review Date: March 2026)



BREDHURST VISION

To learn and grow through the guidance and love of God

OUR MISSION STATEMENT

At Bredhurst CE Primary we value diversity and promote equality of opportunity for all.

Religious education should enable every child to flourish and live life in all its fullness. (John 10:10)

It will help educate for dignity and respect, encouraging all to live well together.

OUR VISION

Our Vision is inspired by Matthew 13 : 31-32, The Parable of the Mustard Seed

Jesus said, "What shall we say the kingdom of God is like, or what parable shall we use to describe it? 31 - It is like a mustard seed, which is the smallest of all seeds on earth. 32 - Yet when planted, it grows and becomes the largest of all garden plants, with such big branches that the birds can perch in its shade."

The theology behind this parable is embedded across all our learning

OUR ETHOS

At Bredhurst, we aim to be proactive in helping each child to achieve the key elements to well-being in childhood and later life. These are:

- be healthy
- stay safe
- enjoy and achieve
- make a positive contribution
- achieve economic well being

OUR CORE VALUES

The 'Spirit of Bredhurst' encompasses our core Christian values

- **S**elf control
- **P**erseverance
- **I**nclusion
- **R**espect
- **I**nspiration
- **T**rust

These are displayed in each classroom, the entrance, the hall and the playground and are referred to regularly in Worship and in class lessons.

This school is committed to safeguarding and promoting the welfare of children and young people and expects all staff and volunteers to share this commitment.

MATHS POLICY

PURPOSE

This document is a statement of the principles, aims and strategies for the teaching of Mathematics at Bredhurst Church of England Primary school.

The purpose of this policy is to ensure that all staff are able to implement the teaching of maths to a high standard in order for our pupils to achieve to the best of their abilities. It has been developed by the Mathematics Subject Leader to continue raising levels of attainment in maths.

Mathematics is a creative and highly inter-connected discipline that has been developed over centuries, providing the solution to some of history's most intriguing problems. It is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. A high-quality mathematics education therefore provides a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject (National Curriculum 2014).

Our objectives in the teaching of mathematics are:

- to ensure pupils are functional in Mathematics in that they have the tools to go out and get jobs in science, technology engineering and economics.
- to promote enjoyment of learning through practical activity, exploration and discussion;
- to provide pupils with opportunities to experience those awe and wonder moments as they solve a problem for the first time.
- to give children rich problem solving activities where they can reason mathematically.
- to develop a practical understanding of the ways in which information is gathered and presented;
- to explore features of shape and space, and developing measuring skills in a range of contexts;

CONTEXT

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 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. The teaching assistants are given clear guidance on how to best support the needs of the learners in the individual classes.

Mathematics teaches children how to make sense of the world around them through developing their ability to attain fluency in the calculation skills, reason and solve problems. Numeracy involves developing confidence and competence in number work; measure; geometry and statistics. It is a core subject with a range of cross-curricular links but most often, is best taught discretely, using opportunities from other subjects to rehearse skills in a context. The following subjects are examples where we aim to deliver those wider links in Mathematics.

ENGLISH

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 mathematics involved. The children 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.

SCIENCE

During science lessons, children are able to use and apply their data handling skills when creating tables and graphs of scientific measurements. Whole class discussion of data also highlights the importance of clear recording of information. Children are also able to use a wide range of measuring devices in a real-life context. Children are required to read the scales on Newton meters, measuring cylinders, weighing scales and a variety of other instruments.

COMPUTING

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 repeating 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. All year groups are using a web based program, Skoolbo, to further their learning at home

P.E.

Whilst engaging in physical activity there are many opportunities where our teachers will incorporate position and direction vocabulary into warm-up games. Furthermore, our dance and gymnastics teaching using sequencing and timing which further link into the Mathematic curriculum.

ORGANISATION

The expectation is that the majority of pupils will move through the programmes of study at broadly the same pace. However, decisions about when to progress should always be based on the security of pupils' understanding and their readiness to progress to the next stage. Pupils who grasp the concepts rapidly should be challenged through being given rich and sophisticated problems before any acceleration through new content. Those who are not sufficiently fluent with earlier material will be given adult support to consolidate their understanding including additional practice, before moving on.

The school has invested in a wide range of manipulatives and training to support the children's conceptual understanding of Mathematics. It is encouraged for pupils of any level to adopt independent strategies for visualising Mathematics through the concrete use of manipulatives.

PLANNING

Long term – National Curriculum, 2014.

Medium term – Kent Plans by year group along with probing questions to support assessment.

Short term - is produced through a series of Notebook pages, with most pages being seen by the children, whilst others are for the teachers and TAs only to peruse. The plans include learning intentions, success criteria, children's targets and mental starter, key teaching points, key questions activities, focus groups, teachers' plans for three levels of differentiation and a plan for a plenary used for self and peer assessment.

Progression documents are attached in the appendices as a guide to the development in skills with addition, subtraction, multiplication, division, algebra and fractions.

Planning for Fir Tree class is done using a proforma which incorporates all of the aspects of planning but which makes clear links with the Foundation Stage curriculum as well as the New National Curriculum.

ASSESSMENT, RECORDING AND REPORTING

Teacher assessment is continuous, to inform planning and diagnose strengths and weaknesses.

For each unit of work taught teachers set challenging and appropriate group targets for the children, the children's progress towards achieving them is assessed and teachers record these assessments on either their planning or in a separate document. Plenaries during lessons afford opportunities for the children themselves to assess their progress towards achieving these targets.

In line with the new National Curriculum children will be given opportunities to apply their reasoning and understanding through rich problem solving activities.

Teachers keep their own records of times tables test results and mental arithmetic tests.

Each term children will be assessed against the end of year expectations and judged whether they are emerging, expected or exceeding. A combination of written tests and formative assessment by way of test will be used throughout the year. This will be analysed by the class teacher and feed into their planning and target setting for the individual children.

Reporting is on a termly basis during consultation sessions and annually through a written report.

Each term teachers analyse data and report to the assessment coordinator the amount of progress being made by all children. Further analysis of data is used to identify vulnerable groups and individuals.

LEADERSHIP AND MANAGEMENT

The subject leader's role is to empower colleagues to teach maths to a high standard and support staff in the following ways:

- By keeping up to date on current issues; disseminating relevant information and providing training for staff members (either directly or through other professionals)
- Leading by example / modelling lessons or styles of teaching
- Having a knowledge of the quality of mathematics provision across the school
- Identifying and acting on development needs of staff members

- Monitoring expectations, provision and attainment across the school and providing feedback to develop practice further in order to raise standards (see monitoring policy and timetable)
- Providing necessary equipment and maintaining it to a high standard. Resources are kept both centrally (topic based work) and within the classroom in clearly labelled trays (for more regular use).
- to keep governors informed of developments in mathematics through liaison with SIGs and reports to curriculum committee as and when necessary.

ENTITLEMENT (SEN)

Pupils all work towards the same learning objectives. Independent and group work is differentiated by task, on occasion by outcome. Pupils are grouped during Mathematics lessons by ability. Teaching is organised to enable pupils of all abilities access to the learning. Three levels of differentiation are planned for each lesson.

Children with SEN/AEN and Gifted children are, if necessary, set targets in Mathematics which form part of their IEP/Opportunities Plan and are reviewed 2 termly. TA help is often offered during the maths lesson either on a one to one or small group basis (please refer to SEN policy).

Booster groups to support our less able mathematicians and gifted mathematicians are devised by teachers and delivered by teaching assistants on a weekly basis; these ensure that the needs of these groups of children are being fully met.

The most able mathematicians (gifted children) are provided with appropriate materials to ensure that they are challenged and stretched.

All pupils are set end of Key Stage targets in Mathematics that are reviewed bi-termly at Tracking Progress/ School Based Review meetings.

Homework is appropriately differentiated and set according to our homework policy.

MONITORING AND EVALUATION

The quality of teaching and learning is monitored as part of the appraisal process through lesson observations and monitoring progress and attainment towards end of year targets. In addition, continuity and progression across the school is monitored by the maths subject leader as is the implementation and impact of Assessment for Learning. Actions identified in the SIP and Maths Action Plan, intended to raise standards, are also monitored for implementation and, when appropriate, impact.

The Maths Subject Leader will also provide termly reports to the Head Teacher in which s/he evaluates the strengths and weaknesses in mathematics, and indicates areas for further improvement.

A named member of the governing body is briefed to oversee the teaching and learning of mathematics. The maths governor meets regularly with the subject leader to review progress.

HEALTH AND SAFETY

Equipment will be used safely and appropriately. Specifically:

- Short pencils on compasses
- Pupils will not lift heavy objects or multiple weights in excess of 5kg to avoid strain to back muscles.
- Food products will be in date.

USE OF ICT

Calculators should not be used as a substitute for good written and mental arithmetic. They should therefore only be introduced near the end of key stage 2 to support pupils' conceptual understanding and exploration of more complex number problems, if written and mental arithmetic are secure. In both primary and secondary schools, teachers should use their judgement about when ICT tools should be used. The school has recently purchased a number of tablet computers which have been used in small group activities.