



Cam Hopton Church of England Primary School (Voluntary Aided)

Maths Policy

Life in all its fullness

Document History

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This policy is to be reviewed in line with other related policies and any other documentation from the DfE, Ofsted and Gloucestershire Diocese.

Cam Hopton C. of E. Primary School Mathematics Policy

1. Purpose of the Policy

This document has been developed to ensure that the teaching of mathematics contributes to the school fulfilling its mission statements of-

‘Life in All its Fullness’

At Cam Hopton C of E Primary School we acknowledge that Mathematics is a life skill. It is an essential element of communication, widely used in society and in everyday situations and in the world of work. Our aim is to help each child develop as far as possible the necessary knowledge, skill and understanding in Mathematics which will foster a solid base of understanding in order to move forward into further study, training and adult life with confidence. We aim to inspire an appreciation of mathematics.

We want children to approach Maths with a ‘can do’ attitude and enjoy the challenges of being a Mathematician.

This policy is intrinsically linked with and is informed by other school policies, including:

- The Calculation Policy
- Teaching and Learning Policy
- Marking and Feedback Policy
- EYFS Policy
- SEND Policy

2. Introduction

At Cam Hopton C of E Primary we use the ‘National Curriculum in England: Mathematics Programmes of Study: Key Stages 1 and 2’ (2014) as a basis for planning, teaching and to fill the governments statutory requirements; this ensures continuity and progression throughout the school.

Assessment for Learning, a focus on investigate and problem solving approaches, plus the development of mathematical thinking are at the heart of our school’s approach. A rigorous and planned commitment to the development of teachers and teaching assistants strengthen this.

3. Aims

Our school believes that every child is entitled to a high quality mathematics education, which will provide a foundation for them understanding the world. As a result, they will have an appreciation of the beauty and power of mathematics, a sense of enjoyment and curiosity of the subject. It is our belief that children should:

- **develop a positive attitude of Maths**, so that they:
 - use it often in areas of learning
 - are curious about number and patterns
- **become fluent in the fundamentals of mathematics**, so that they:
 - have a well-developed sense of number values

- know by heart key number facts, e.g. times-tables and related division facts, number bonds – in line with the latest programmes of study
- apply knowledge of the above to work out connected facts
- **reason mathematically**, so that they:
 - are able to follow a line of enquiry
 - provide generalisations and proof of findings around their investigations
 - are able to justify their thinking, e.g. as to why a particular calculation strategy is the most efficient
- **solve problems by applying their understanding of mathematics**, so that they:
 - encounter a variety of both routine and non-routine problems
 - are able to select specific maths skills and/or operations
 - persevere with a line of enquiry, breaking down increasingly complex problems into a series of smaller steps

4. Coverage

In order that our children get a broad and balanced mathematical curriculum, we will ensure that the following domains are covered each year:

- Number:
 - number and place value
 - addition and subtraction
 - multiplication and division
 - fractions, including decimals and percentages
- Measurement
- Geometry
 - properties of shape
 - position and direction
- Statistics
- Ration and proportion (Year 6)
- Algebra (Year 6, although the foundations will be taught from Key Stage 1)

Our school is committed to fostering positive attitudes towards the subject, whilst ensuring that all pupils develop deep conceptual understanding (in part, through exposure to a range of models and images) and mastery across the domains listed above, and in line with their age group. In line with the curriculum's focus on children making connections, our school will provide regular and stimulating cross curricular enrichment opportunities during various lessons including: Science, DT and History.

5. Organisation & Planning

We follow the specific learning objectives (LQ) from the Can Do Maths curriculum and adapt when necessary. This is focused on manageable steps which break the National Curriculum objectives into smaller, bite-size steps. The children are aware of the learning journey and the links between the manageable steps and they are also displayed on the class working wall.

At Cam Hopton, everybody starts at the same learning point meaning teachers do not have preconceived ideas about what the child can already do. Children who are on EHCPs (Educational Health Care Plans) may have specifically planned lessons as they may be working on a different year group curriculum to their peers.

The high-quality teaching sequence is structured using the following approach:

- LQ and the relevance to real-life Maths
- Recapping previous learning
- New vocabulary
- Exploring the learning using the I do, We do, You do approach
- Modelling the response (using the vocabulary) to a misconception
- Children applying themselves to task
- Plenary

Application of skills in Maths books follow this criteria:

- Try it (a short selection of variation questions practising the skill taught)
- Twist it (a misconception which the children have to explain)
- Solve it (problem solving activity eg word problems, missing number questions)
- Prove it (an open ended problem solving task)

Varied Maths resources and representations to support lessons will be used by the children and modelled by the teacher. The teacher and additional adults are aware of their focus children.

Within the yearly overview of lessons, timetabled problem solving lessons usually take place at the end of a unit of work.

Maths on Track sessions (MOT) take place daily. These 20 minute sessions allow the children to practise previously taught skills, revise misconceptions or delve deeper into the Maths focus. This is guided by the teacher's assessment for learning and planned and resourced accordingly. KS1 follow the Mastering Number Programme where appropriate in their MOT sessions.

6. EYFS

In the foundation stage, the learning will be organised to promote social skills and the development of Mathematical knowledge and understanding. Children in EYFS will follow the Mastering Number programme which follows the 'Statutory Framework for the Early Years Foundation Stage.' Topics that aren't covered (e.g. shape) will be taught additionally. This will prepare children starting the National Curriculum in Year 1.

7. Assessment, recording and reporting

Assessment takes place at three connected levels: short-term, medium-term and long-term. These assessments are used to inform teaching in a continuous cycle of planning, teaching and assessment.

Day-to-day assessments

As part of the ongoing teaching and learning process, teachers will assess children's understanding, achievement and progress in mathematics. Learners will also be taught to assess and evaluate their own achievements by recognising successes, learning from their own mistakes and identifying areas for improvement. At the end of the lesson, children will complete a SAM (self assessment and marking box)- available to read in the Feedback and Marking Policy. Learning will also be assessed by the teacher. This will in turn inform day to day teaching and learning.

Periodic assessments

These may take place at the beginning or end of a unit. Teachers may assess key ideas, end of year expectations, targets and areas of concern that have been covered during these units.

External Assessments

In Years 2 and 6 children take National Curriculum tests (commonly called SATs) in May. The tests are an opportunity to compare pupils nationally to ensure schools are helping pupils to master the basics in Mathematics to make progress. They are also an important school to help teachers identify pupils who may need additional support, and make sure this is put in place as early as possible.

8. Home School Learning Links

At Cam Hopton C or E Primary School we use homework grids to support children's learning at home within the school.

9. Resources

Teachers will use:

- Teaching for Mastery Documents
- Can Do Maths Schemes of Learning
- School Calculations Policy
- GLOW Maths
- When appropriate, commercially produced or free downloads.

Alongside these, teachers use a range of other materials to support their planning in order to deliver a differentiated Maths curriculum:

- Each class has its own supply of resources to support the teaching of number, e.g. number lines and squares, counters, coins, games.
- Some equipment for mass, time and capacity are stored centrally for use by all classes. Teachers liaise on its usage. Use will be made of computer programmes to enrich children's learning experiences.
- A variety of ICT resources and apps (e.g. Times Table Rockstars)
- A range of concrete apparatus such as Numicon, Base 10 or diennes, Cusinare Rods etc.

10. Reviewing this Policy

This policy will be reviewed every two years or as becomes necessary.

Cam Hopton C of E Primary School is committed to safeguarding and promoting the welfare of children and young people and expects all staff and volunteers to share this commitment.

This school aims to be part of the wider community through fostering Christian values, and the development of spirituality through reflection to enhance relationships.