



Callow End School

Mathematics Policy

At Callow End we provide a caring environment where everyone works together to build a firm foundation for love and learning. As a foundation for love we provide a welcoming, safe and supportive environment in which the qualities and abilities of all our pupils are nurtured and celebrated. We use our school's Christian values to guide us, sharing an ethos of love and respect, treating everyone in the way that we would like to be treated. We strive to celebrate differences both in our school community and around the world through our teaching, learning and shared life with our Church.

As a foundation for learning, we promote excellence, providing an inspirational curriculum which enables all pupils to aspire, achieve and flourish. We want our children to have positive emotional and mental health, and an understanding of their place in the wider world.

All our policies are written to reflect and support this vision.

Approved by:	The Local Academy Board	Date: March 2025
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Last reviewed on:	12 th March 2025
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Next review due by:	March 2028
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Policy Statement for Mathematics

At Callow End, we believe that 'everyone can grow under the right conditions'. In mathematics, we advocate for this idea in believing that every child can be a confident, competent mathematician if they are given the right tools, time and explanation.

To achieve this, we follow a Teaching for Mastery approach, ensuring that all pupils develop a deep and secure understanding of concepts. They learn to 'play' with numbers, seeing mathematics as a creative and interconnected discipline rather than a series of processes. Through concrete and visual representations, we expose the structure of maths and encourage children to think deeply and explain their reasoning. Together, we build shared understandings and explore generalisations.

Our aim is for all children to become fluent mathematicians with increasing efficiency, who are able to reason and explain their thinking articulately and apply their knowledge to solve problems.

Aims

The national curriculum for mathematics aims to ensure that all pupils:

Become fluent in the fundamentals of mathematics, including the varied and regular practice of increasingly complex problems over time.

Reason mathematically by following a line of enquiry, understanding relationships and generalisations, and developing an argument, justification or proof using mathematical language.

Can solve problems by applying their mathematics to a variety of problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.

General:

To ensure that all staff, pupils, parents/carers and governors are aware of the aims for teaching and learning mathematics at Callow End CE Primary School and that these are consistently applied.

School staff:

- To create a positive culture around maths by modelling resilience and the belief that everyone is able to 'do' maths.
- To have high expectations for all.
- To increase children's confidence in seeing connections within maths and moving fluently between concepts and ideas.
- To support children to develop fluency and apply pre-existing knowledge to new concepts.
- To promote understanding and progress in solving problems through making links and using representations.
- To develop reasoning through finding proof and generalisations and modelling mathematical language.

Pupils:

- To develop an enjoyment and appreciation for maths.
- To become resilient learners with self-belief and a positive attitude towards maths.
- To approach problem solving in a systematic way, applying prior knowledge.
- To achieve fluency in the fundamentals of maths.
- To see maths as an interconnected subject and seek patterns and connections.
- To develop reasoning through finding proof and generalisations, using mathematical language.

Parents/carers:

- To be understanding and supportive of our aims.
- To support their child(ren) with becoming fluent in their times tables, recognising the importance of this.
- To speak positively about mathematics and instil a belief in their child(ren) that all can achieve.
- To attend meetings about mathematics.
- To support their child(ren) with maths homework and communicate with school if further support is required.

Governors:

- To monitor mathematics through the teaching and learning.
- To communicate with the maths lead in line with SDP priorities.

School Curriculum – Programme of Study

EYFS

As set out in the EYFS profile handbook, by the end of the Foundation Stage, children at the expected level of development will:

ELG: Number

- Have a deep understanding of number to 10, including the composition of each number;
- Subitise (recognise quantities without counting) up to 5;
- Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts.

ELG: Numerical Patterns

- Verbally count beyond 20, recognising the pattern of the counting system;
- Compare quantities up to 10 in different contexts, recognising when one quantity is

- greater than, less than or the same as the other quantity;
- Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.

To achieve this, *Mastering Number* will be used to teach number aspects of maths. To support further with their planning, teachers have access to *White Rose Maths* to supplement and further learning where it is appropriate.

Key Stage 1

The principal focus of mathematics teaching in key stage 1 is to ensure that pupils develop confidence and mental fluency with whole numbers, counting and place value.

This should involve working with numerals, words and the four operations, including with practical resources [for example, concrete objects and measuring tools]. At this stage, pupils should develop their ability to recognise, describe, draw, compare and sort different shapes and use the related vocabulary. Teaching should also involve using a range of measures to describe and compare different quantities such as length, mass, capacity/volume, time and money.

By the end of year 2, pupils should know the number bonds within 20 and be precise in using and understanding place value. An emphasis on practice at this early stage aids fluency. Pupils should read and spell mathematical vocabulary, at a level consistent with their increasing word reading and spelling knowledge at key stage 1.

Lower Key Stage 2 - Years 3 and 4

The principal focus of mathematics teaching in lower key stage 2 is to ensure that pupils become increasingly fluent with whole numbers and the four operations, including number facts and the concept of place value. This should ensure that pupils develop efficient written and mental methods and perform calculations accurately with increasingly large whole numbers.

At this stage, pupils should develop their ability to solve a range of problems, including with simple fractions and decimal place value. Teaching should also ensure that pupils draw with increasing accuracy and develop mathematical reasoning so they can analyse shapes and their properties, and confidently describe the relationships between them. It should ensure that they can use measuring instruments with accuracy and make connections between measure and number.

By the end of year 4, pupils should be fluent in their multiplication tables up to and including 12×12 , which will be tested through the Multiplication Tables Check (MTC). They will show precision and fluency in their work.

Pupils should read and spell mathematical vocabulary correctly and confidently, using their growing word-reading knowledge and their knowledge of spelling.

Upper Key Stage 2 - Years 5 and 6

The principal focus of mathematics teaching in upper key stage 2 is to ensure that pupils extend their understanding of the number system and place value to include larger integers. This should develop the connections that pupils make between multiplication and division with fractions, decimals, percentages and ratio.

At this stage, pupils should develop their ability to solve a wider range of problems, including increasingly complex properties of numbers and arithmetic, and problems demanding efficient written and mental methods of calculation. With this foundation in arithmetic, pupils are introduced to the language of algebra as a means for solving a variety of problems. Teaching in geometry and measures should consolidate and extend knowledge developed in number. Teaching should also ensure that pupils classify shapes with increasingly complex geometric properties and that they learn the vocabulary they need to describe them.

By the end of year 6, pupils should be fluent in written methods for all four operations, including long multiplication and division, and in working with fractions, decimals and percentages.

Pupils should read, spell and pronounce mathematical vocabulary correctly.

Cross curricular

Throughout the whole curriculum, opportunities to extend and promote Mathematics should be sought. From EYFS, children are encouraged to talk and wonder about mathematics. Mathematics is taught contextually giving it meaning and relevance to daily life. From EYFS, mathematics is taught in a context to make learning more personalised and enjoyable for the children.

Teaching and learning

The approach to the teaching of mathematics within our school is based on:

- A mathematics lesson every day.
- A clear focus on direct, instructional teaching and interactive oral work with the whole class.
- Clear building blocks and retrieval to ensure that all knowledge is sequenced in a coherent way.

The DfE Non-Statutory guidance will be referred to when planning to ensure that any gaps in learning are addressed due to the national lockdown in March 2020. Teachers will revisit and review concepts from the previous taught year group before moving onto current year group content. This is done through Flashback4s to analyse any gaps and anchor tasks.

Within lessons, children will have access to concrete resources to help them embed and understand new knowledge. Children will have access to concrete resources and connect them to pictorial representations and abstract problems. Children should have access to a range of different variations to support them to achieve a deep understanding of a taught concept.

Language is a crucial part of mathematics and at Callow End we ensure that children are exposed to a range of mathematical vocabulary which will be displayed in the classroom and referred to.

Vocabulary will be current and used regularly within mathematics lessons. Children are encouraged to explain their thinking and use 'because' to demonstrate their understanding.

Assessment

All assessment is used to inform teaching and learning. We plan with misconceptions in mind and act quickly on these as they arise.

We assess children in these ways:

- Assessment for learning, which is continuous throughout all lessons (verbal feedback, mini whiteboards, episodic teaching).
- Marking – both live and at the end of the lesson to inform same-day interventions.
- NTS tests at the end of each term (followed by gap analysis).
- Pre unit tests (from the previous year group) and post unit tests.
- DfE tests (MTC, SATs).

Monitoring and Evaluation

As part of the whole school process of the ongoing monitoring and evaluation of teaching and learning, the following processes are in place:

- Subject leader's file presenting a range of evidence related to standards.
- Evaluation schedule/audit by staff of whole school provision.
- Whole school monitoring and evaluation including a planned programme of learning walks and pupil progress meetings.
- Governor monitoring and evaluation in accordance with the monitoring timetable and SDP
- CPD to enhance the teaching of mathematics linked to the SDP and to performance management objectives.
- Staff regularly engage with opportunities offered by the GLOW maths hub; subject leader attends half termly meetings.

Reviewed & re- ratified	March 2025
Next review Date	March 2028