



Callow End CE Primary School Curriculum

'Building a foundation for love and learning.'

Maths Curriculum Statement

Intent

At Callow End, we build a foundation for love and learning by providing a welcoming, safe, supportive environment and have high aspirations for **all** our pupils. As part of this vision, we aim to ensure that our pupils receive the best possible education, through a maths curriculum which is rich, broad and balanced and includes a wide variety of learning opportunities. Through our teaching of maths, we inspire our pupils to and their families to have a positive attitude towards the subject and for them to see themselves as competent mathematicians.

Through our carefully planned, progressive scheme of work we support our pupils to make links between existing knowledge and learnt knowledge. We prioritise fluency and encourage children to recall known mathematical facts to support them in choosing the most appropriate methods to solve problems. Applying mathematical knowledge means that we are able to develop our pupils' abilities to problem solve and reason in a variety of contexts. This supports them in becoming confident mathematicians who enjoy maths, are resilient and persevere. We have a positive attitude towards mistakes and know that they are part of the learning process.

Our mathematics curriculum focuses on pupils' thinking. We plan questions carefully to ensure a deep understanding of key concepts and choose representations and models carefully. This encourages our children to think flexibly in maths. We teach whole year groups together in lessons, embedding a mastery approach through pupils working collaboratively on the same lesson content at the same time. We expect discussion within lessons and support pupils to explain their thinking thoroughly through the use of sentence stems.

Implementation

In order to ensure full coverage and progression over time, each year group follows the objectives outlined in the National Curriculum, following the *White Rose Maths* scheme. Year groups are taught individually and together where appropriate. Adaptive teaching is used to support and challenge all abilities. Following the *Ready to Progress* criteria, children who are not ready for their year group's objectives will continue to work on objectives appropriate for their level of understanding or receive extra intervention through *Number Stacks*.

Within *White Rose Maths*, children are exposed to elements of fluency, reasoning and problem solving as the lessons are designed around these three mathematical elements. Regardless of ability, all children should have access to fluency, reasoning and problem solving as well as opportunities to show greater depth of understanding, for example using

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questioning appropriate to the ability of the child. Our typical lesson structure is as follows:

- Flashback4 for retrieval practice
- Anchor task (carefully designed question to stimulate discussion and check for prior understanding and misconceptions)
- Episodic teaching focusing on use of manipulatives, discussion and continuous prior assessment as children work through *Do it (independent practice, fluency questions on objective)*, *Twist it (variation of the concept or correcting a misconception)*, *Deepen it (problem-solving, open-ended investigation or reasoning)*.

In EYFS and Year 1, *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.

To allow teachers to design a creative and engaging curriculum, we also have access to the following to supplement *White Rose Maths*:

- Classroom Secrets
- Master the Curriculum
- Third Space Learning
- NRICH
- NCETM
- DfE Non-Statutory Mathematics guidance
- Primary Stars Education

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. 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.

Within Year 3 and Year 4, multiplication facts are reviewed daily to encourage children to be able to learn and recall multiplication and related division facts confidently. At the end of each week, the children will take part in a 'fast maths' activity to continually progress the children's knowledge of their times tables. All children have access to Times Table Rockstars to continually practise their multiplication and division facts. Within Year 3 and 4 this is reviewed weekly to target specific times tables and provide focus for the week's multiplication teaching. It is also set as homework.

In Year 5 and Year 6, times tables will continue to be taught to children who achieved less than 22/25 on the MTC. All children will access times tables booklets at least twice per week and will chant answers together to continue to keep them fresh in their memories. Children will be encouraged to use these facts to support them in other areas of maths.

Within EYFS and KS1, children will have daily *Mastering Number* sessions to develop their fluency. Teachers will access CPD through involvement and training with GLOW.

Times Table Rockstars can be accessed both at school and at home for children in Year 2 upwards.

Impact

The impact of our maths curriculum is constantly monitored through both formative and summative assessment opportunities. Each scheme of learning includes guidance and key questions to support teachers in assessing pupils against the learning objectives.

Summative assessments are used termly and updated on the Arbor tracking system.

Teachers may wish to keep their own individual records to show how their class progress throughout the different strands in mathematics. Teachers will also use the *White Rose Maths* tests following each unit to make their own judgements and identify gaps. This indicates next steps for learning. Where children are not making expected progress, interventions will be provided to support them. Prior to each unit, children will complete the test for the previous year group of this unit. Gap analysis will then support teachers with their planning and enable them to put in any pre-teaching for individuals who may need it.



As Callow End follows a mathematics mastery approach it is expected that children will be supported to 'keep up' rather than 'catch up'. This will ensure that children achieve their end of year expectations and is done using daily flashbacks in KS2 and same day interventions across the school.

Children will be able to recall their number facts across all operations which will allow them to store these in their long-term memory, providing more space within their working memory for new taught concepts.

After the implementation of our maths curriculum, our pupils should leave Callow End able to recall their number facts across all operations. They should have a competent understanding of maths and be able to form connections between concepts. We aim to set pupils up with a positive attitude towards maths and to have built a love of learning.



