

# Mastery at Stoke by Nayland Primary C of E School

## Mastery Approach to Teaching and Learning

We are still in the early stages of implementing a mastery approach to our mathematics teaching. The Mastery-learning model forms the basis of our approach to teaching the National curriculum. A mastery approach means that we are taking learning at a steadier and deeper pace, trying to ensure that children are not left behind; as well as providing deeper and richer experiences for children who are above the national expectation for their age. We use the White Rose Hub materials as a basis for our teaching and planning.

At Stoke By Nayland we focus on ensuring that children have an absolutely solid, concrete understanding of subject knowledge and skills. We have the confidence to take learning at a steadier and deeper pace, ensuring that no child is left behind, as well as providing deeper and richer experiences for children who are working above the national expectation for their age. Children spend time becoming really confident with the objectives for their age, applying and being creative with new knowledge and skills in multiple ways.

### ***Maths teaching for mastery rejects the idea that a large proportion of people 'just can't do maths'***

- All pupils are encouraged by the belief that by working hard at maths they can succeed.
- Procedural fluency and conceptual understanding are developed in tandem because each supports the development of the other.
- Significant time is spent developing deep knowledge of the key ideas that are needed to underpin future learning. The structure and connections within the mathematics are emphasised, so that pupils develop deep learning that can be sustained.
- Key facts such as multiplication tables and addition facts within 10 are learnt to automaticity to avoid cognitive overload in the working memory and enable pupils to focus on new concepts.

### ***In short, this means working towards:***

- Teach less, learn more: less teacher talk and more evidencing of learning and progress
- If a pupil fails to grasp a concept or procedure, this is identified quickly and early intervention ensures the pupil is ready to move forward with the whole class in the next lesson.
- Space and time to experience and apply, with all children entitled to additional support to ensure they do not fall behind or to go deeper
- Understanding real life applications wherever possible to make learning relevant and not abstract; nothing should be taught without a purpose.
- Catch up: some children will be given additional time and support to learn concepts that they have not yet grasped from previous year groups

### ***In our maths lessons you will see***

- Pupils being taught through whole-class interactive teaching, where the focus is on all pupils working together on the same lesson content at the same time. This ensures that all can master concepts before moving to the next part of the curriculum sequence, allowing no pupil to be left behind.
- Lesson design identifying the new mathematics that is to be taught, the key points, the difficult points and a carefully sequenced journey through the learning. In a typical lesson pupils sit facing the teacher and the teacher leads back and forth interaction, including questioning, short tasks, explanation, demonstration, and discussion.
- Use of the CPA approach where the use of manipulatives is central to our teaching.
- Children being required to verbalise their thinking. Depth of mathematical understanding is developed through children's communication about maths using the correct mathematical language. Pupils are asked to explain, justify and prove their ideas deepening their understanding of a concept
- More verbal feedback during lessons and shorter comments in books
- More time given for discussion and pair work
- Teachers using questioning to check understanding and any misconceptions. If children have struggled with a concept, teachers will intervene to address the issue that same day where possible
- Opportunities for children to investigate carefully planned open questions that require them to sort, compare, seek patterns and look for rules. To further develop as active mathematicians, children need opportunities to ask questions and create their own problems to explore.

### ***There will be less of this:***

- Formal marking with lots of written feedback and highlighting
- Covering lots of ideas in one week
- Formal, long-term interventions to boost them out of class
- Separating children into ability groups
- Formal testing of children weekly or termly Giving children who need it, additional support over shorter, more intense periods, like a day or week.
- Daily or weekly mini assessments with a few formal tests over the year

