



Curriculum Statement for Maths

Intent:

At Stoborough Primary School we have worked hard to develop a mastery approach in order to deliver the three aims of the National Curriculum; fluency, reasoning and problem solving. Underpinning this pedagogy is a belief that all children can achieve in maths. Teaching for conceptual understanding is at the heart of everything we do. There is no ceiling on our learning, and the culture in our school suggests we merely have 'quicker graspers' and 'slower graspers'; so all learners are appropriately challenged. Our approach aims to provide all children with full access to the curriculum, enabling them to develop independence, confidence and competence - mathematical 'mastery' which will mean the children are well equipped to apply their learning to the wider world.

We want all children to enjoy Mathematics and to experience success in the subject, with the ability to reason mathematically. We are committed to developing children's curiosity about the subject, as well as an appreciation of the beauty and power of Mathematics.

Aims:

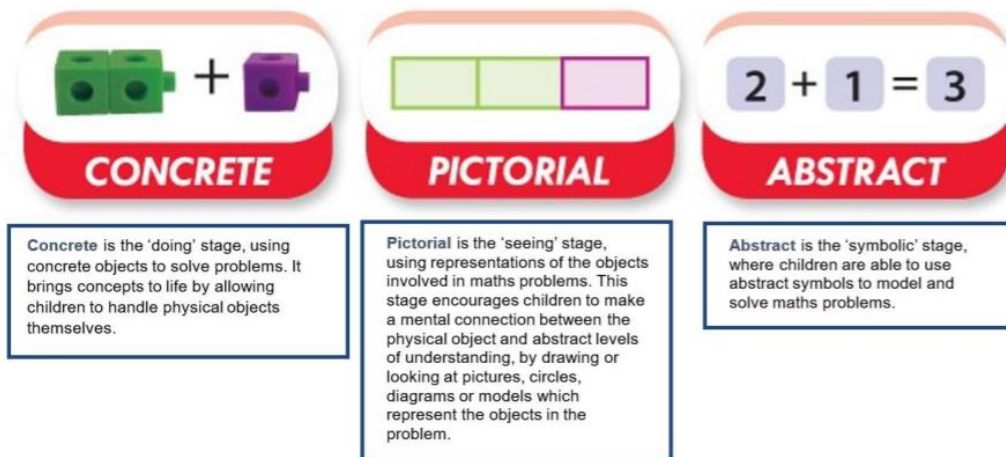
The National Curriculum for mathematics aims to ensure that all pupils ...

- become fluent in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately
- reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
- can solve problems by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions

Teaching for Mastery aims to provide all children with full access to the curriculum, enabling them to achieve confidence and competence - 'mastery' - in mathematics, developing the maths knowledge and skills they need for the future.

Implementation

Our teaching and learning puts emphasis on the cumulative nature of essential knowledge and skills in mathematics. It embeds a deeper understanding of maths by utilising a concrete-pictorial-abstract approach so that children understand what they are doing rather than just learning to repeat routines without grasping what is happening.



How are all learners supported to make progress?

Key features of our Maths Mastery Curriculum for *all* learners:

- Teachers reinforce an expectation that all children are capable of achieving high standards in Mathematics.
- The large majority of children progress through the curriculum content at the same pace; Significant time is spent developing deep knowledge of the key ideas that are needed to underpin future learning. This ensures that all can master concepts before moving to the next part of the curriculum sequence, allowing no pupil to be left behind.
- 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.
- Lesson design identifies 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 the teacher leads back and forth interaction, including questioning, short tasks, explanation, demonstration, and discussion.
- Practice and consolidation play a central role. Carefully designed variation within this builds fluency and understanding of underlying mathematical concepts.

- Pupils are taught to calculate with confidence and understand how a process works. They are taught strategies so that if they get stuck, they know how to go back a stage; to encourage independent thinking
- 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.
- Manipulatives are readily used and available throughout all maths lessons
- Problem solving and reasoning is central and embedded into every lesson; not bolted on at the end of a topic

To ensure whole consistency and progression, the school uses the nationally recognised White Rose Maths scheme. We use a spiral curriculum approach to teaching maths. A spiral mathematics curriculum is effective because it promotes deeper understanding, better retention, and gradual mastery of concepts. In this approach, topics are revisited regularly at increasing levels of complexity, allowing students to build on prior knowledge and reinforce their learning over time. This repeated exposure supports children in retaining skills and knowledge in their long-term memory. By returning to key concepts multiple times, students have more opportunities to overcome misconceptions and strengthen their understanding, regardless of their initial level of proficiency.

In order to develop problem solving skills where children are taught how to solve problem solve we enrich our maths curriculum using 'I see maths' and NCTEM.

Mathematical topics are taught in blocks, to enable the achievement of 'mastery' over time. These teaching blocks are broken down into smaller steps, to help children understand concepts better. This approach means that children do not cover too many concepts at once which can lead to cognitive overload.

Those children who have been identified as not making at least expected progress or who are working behind age related expectations, will participate in regular timetabled maths interventions, where the focus is to close these gaps.

If a child's needs are best met by following an alternative plan, including coverage of the content from previous years, this will be overseen by the SENCo, in collaboration with the class teacher and with the knowledge of the senior leadership team. Specific arrangements for the provision of children with SEND will be communicated to parents and carers during SEND review meetings.

Maths in Reception

In the Early Years Foundation Stage (EYFS), mathematics is taught through a balance of adult-led activities and child-initiated learning within continuous provision. Teacher-led

group sessions are used to introduce new mathematical concepts, such as number recognition, counting, simple addition, and shape. These sessions are carefully planned to be engaging, interactive, and appropriate to the developmental stage of the children. Alongside these structured times, mathematical learning is embedded throughout the day in continuous provision, where children have opportunities to explore and apply their understanding in meaningful, play-based contexts. This approach reinforces previously taught concepts and helps to deepen understanding through repetition and hands-on experience.

Within continuous provision, adults play a crucial role by observing, interacting, and extending children's thinking. They model mathematical language effectively, using terms like "more," "fewer," "longer," "half," and "altogether" in natural conversations and during play. This language-rich environment supports children's mathematical vocabulary and reasoning skills. For example, an adult might join a child building a tower and ask, "Can you find a block that's longer?" or "How many more do you need to make five?" By blending direct teaching with exploration and skilled adult interaction, EYFS settings lay strong foundations for future mathematical learning.

Structure of a Maths lesson in Year 1- Year 6

Maths is taught daily during the morning. A typical maths lesson lasts approximately 1 hour and begins with an automaticity activity to ensure children become automatic in a range of number facts.

The small step for the lesson is shared with the children. The daily lesson will start with a reasoning task. This should be based on the current unit of learning and be a task that focuses on pupil talk. Pupils should have the opportunity to explain their thinking to a talk partner and use mathematical language. Pupils should be encouraged to use diagrams, drawings and writing to describe and explain their thinking. Teachers should model this explicitly to scaffold and relevant mathematical vocabulary and sentence stems should be displayed and always available.

The instructional part of the lesson should be modelled using visuals or manipulatives (a visualiser is available in all classes for this purpose). While modelling the 'I do' section, teachers should verbalise their thinking and processes, highlighting any common misconceptions. During the 'We do', guided part of the lesson, teachers should be moving around the room to check for understanding. Show me whiteboards are also effective assessment tools. This assessment must inform which pupils may need additional scaffolding (adults, manipulatives) during the independent part of the lesson. Questioning should be used to check understanding. Cold calling (with name at end) ensures that all pupils are engaged and thinking. Questions can also be bounced to other pupils to clarify thinking, check understanding or address errors. Targeted questions to vulnerable pupils will also inform accurate assessment.

The independent task, 'You do', should match the learning objective exactly. Tasks may be fluency practice or applying skills to real life problems. Pupils should write in their books as much as possible and teachers need to model and encourage the correct layout and presentation to support accurate calculations

Maths Fluency in Year R - Year 6

Through our teaching of maths we understand that children need to be automatic in a variety of mathematical concepts and calculations. Regular teaching to develop children's fluency enables us to ensure children's automaticity is progressively developed. At Stoborough CE Primary we recognise that the best way to develop maths fluency is frequent practice. In Year groups 1 and 2 we use Fluency Bee as a resource to develop children's fluency. Children in Years 3 and 4 we teach and practice times tables fluency using the Numbersense programme. In years 5 and 6, teachers will provide fluency sessions based on identified gaps in arithmetic skills or key number knowledge.

Children in Years 2-6 have access to TT Rockstars, an online programme enabling targeted times tables practice. Both programmes are accessible in school and at home.

Each day children have 'Flashback 4' session. Flashback 4 is used to give pupils the opportunity to revisit previous learning.

Impact:

Formative Assessment is ongoing throughout every lesson. If a child has a misconception or a gap in their understanding, we aim to address it there and then.

Self-assessment is used consistently and opportunities for additional practice and correction are provided by the teacher, as appropriate, during the feedback part of the session, with a focus on promoting and achieving a growth mindset approach in the subject.

We regularly assess children's automaticity in maths. The outcome of this is used by the teacher to ensure that any identified gaps in automaticity can be addressed.

End of years standardised NFER tests inform teacher assessments in years 3, 4 and 5. Year 2 take the non-statutory SATs.

Statutory assessments take place in Years 6 at the end of the year. Children in Reception are assessed against Early Learning Goals.