

Maths - Intent, Implementation & Impact

What is the Intent of our maths mastery curriculum?

At St.Botolph's CE Primary School, it is our intent that children grow up enjoying mathematics and understand the connections between maths and the real world.

Sound mathematical knowledge and consistently high Quality First Teaching is key to delivering a high quality mastery mathematics curriculum.

We aim to provide our children with a wide range of opportunities to build on procedural fluency and conceptual understanding so they can make secure connections. We begin with concrete apparatus, move to the pictorial and then the abstract (CPA).

Children have the time to practise skills so they can become fluent and retain key information. They also have time to revisit areas to secure knowledge.

We want them to become confident mathematicians who can reason, justify and explain. They are given the support, skills and encouragement in order to enable them to enjoy a greater depth in learning. We also encourage them to develop inquisitive minds and self-belief so they want to push themselves to learn more.

How is our maths curriculum being Implemented?

We have worked together as a staff team to develop a programme of mathematics for our school but we are always keen to learn more in order to ensure that our curriculum is the best it can be for our children.

Planning & Organisation

In our FS, staff work hard to provide the children with a range of experiences of mathematics using resources familiar to the children to build initial skills and understanding. Our FS/Year 1 teachers have been on additional training to learn more about making the best use of concrete resources such as Numicon so the children are used to seeing different representations of number. This practice has been promoted throughout the school so the benefits of using appropriate resources such as Numicon can be seen all the way up to year 6.

Long-term planning	National Curriculum - Mathematics White Rose Yearly Grids
Medium-term planning	White Rose Planning & assessment activities Additional resources from Third Space Learning

	Additional materials are used where necessary
Short-term planning	Weekly planning created in teams. Mental skills practised daily - Minute maths, Fluent in Five, Times Tables Rock Stars, Numbots.

Teachers also use our agreed School Calculation Policy to ensure a consistency of approach across the school. They also focus on key mathematical vocabulary and terminology so children understand how important comprehension is to their understanding of a question.

We currently teach year groups separately and have been fortunate to be able to ensure that most teaching groups are around twenty children. The groups are usually mixed ability.

In classrooms, you will see children who are focussed on their learning. Discussion and collaboration is encouraged alongside independence and resilience. We like our maths lessons to be engaging and enjoyable. Children are given many opportunities to repeat and reinforce learning and follow lines of enquiry.

How do we know what Impact our maths curriculum is having on pupils' mathematical knowledge?

The Head, Deputy, Maths Subject Leaders and teachers regularly assess the impact of our maths curriculum on our pupils in terms of their mathematical knowledge, engagement, progress and attainment in different ways as stated including:

- ❖ Pupil/teacher 1:1 meetings - How do the children feel about maths? What are their perceptions of how they are doing? What can they do well? What are their next steps?
- ❖ Pupil progress meetings - Head/Deputy (Assessment leaders) scrutinise data and set targets, Key Stage teams analyse their data and review targets, support, planning and identify key areas to improve mathematical learning.
- ❖ Termly Testbase tests to assess knowledge in key areas and gain standardised scores to support tracking and assessment. Teachers use information along with formative assessments to tell them which areas the children are confident in. They can identify specific areas to target to build on mathematical knowledge and to ensure any gaps are filled.
- ❖ Monitoring and evaluation of pupils' work, planning, observation of lessons and pupil voice.

The impact of our mathematics curriculum is that children understand the relevance of what they are learning in relation to real world concepts. We have fostered an environment where Maths is fun and it is OK to be 'wrong' because the journey to finding an answer is most important. Teachers build good relationships with children during maths sessions so they know when a child is progressing well and when they need help. We encourage an environment where questions are welcomed and it is okay to check and to take a risk. Effort is rewarded and any misconceptions are seen as a good way to review learning.

We support children to strive to be the best mathematicians they can be, ensuring a greater proportion of children are on track to meet and exceed their potential.

Children 'have a go' and choose the equipment they need to help them to learn along with the strategies they think are best suited to each problem. Children are developing skills in being articulate and are able to verbally, pictorially and in written form reason well.

Assessment (additional information) -

1. Formative/Ongoing - During lessons teachers target individuals who have misconceptions or tasks are adapted for children who require a different amount of support or degree of challenge. Children receive timely feedback so that they can address errors and move on in their learning. Teachers use knowledge gained during lessons to adapt future planning and lessons. They can also identify those requiring intervention. Effort and achievement can also be recognised. *See Marking & Feedback policy.
2. Summative/diagnostic - We use assessments from White Rose and questions from Testbase.
Summative/termly - Each term children complete Testbase tests. Teachers and leaders use information to address individual and common areas of strength and weakness. This information is also used to support future planning and needs.

Leaders and Teams also look at the school as a whole, identifying children and groups of children who require intervention and asking questions.

Standardisation

1. EYFS, Year 2 and Year 6 - At the end of these years, levels are submitted to the LA. Work is moderated by the LA, Trust Schools or within school.
2. Children from years 1-6 complete Testbase tests termly (or practise SATs papers).
3. Moderation of work and Testbase data is carried out across our Trust schools.

Moderation

1. Within Key Stage teams
2. By maths subject leaders
3. By SLT or Head & Deputy
4. With members of Trust Schools
5. Through EEF/External support

Inclusion and Intervention

For those children who require additional support, we have a number of ways in which we provide help. We have a growing number of children who are entitled to additional SEN support. Members of support staff will know what the child's targets are for maths and will have the necessary support to enable the child to access the lesson.

Types of intervention at St.Botolph's

Some children may receive pre/post teaching in order to help them to understand or become confident/competent in key concepts or knowledge.

Programs generally used by staff are Power of 1 and Power of 2. These have been shown to be successful in developing key mathematical knowledge and has built confidence.

Booster Groups - Year 6 children may attend Booster Groups as they get closer to the SATs to help them to feel confident in key areas.

Homework - Children are offered support in school if they find they cannot complete their homework at home for whatever reason.

Homework is designed to build on learning that takes place in class. Children in Key Stage One practise number bonds through the Numbots program. Children in Key Stage Two practise times tables through Times Tables Rock Stars (some may continue with number bonds). Our children also complete additional pieces of maths homework during each term by picking pieces from the homework grid. This may sometimes be specific targeted work sent out weekly to the older children.

Who else supports the pupils so they can excel and enjoy maths?

Working together - Support from Stakeholders

Pupil Voice - Teachers have the opportunity to speak to individual pupils on a one-to-one basis termly. They discuss areas of strength and challenge, setting targets to work on. Pupils and teachers also discuss effort and how they are getting on with homework.

Parental support - We work with parents to keep them informed of how they can support their child at home and how well their child is doing. For example, we hold parent observation/information lessons to share calculations strategies and methods taught. Parent/teacher meetings are held twice a year and reports are sent out during the summer term. Copies of Pupil 1:1 meeting sheets are also sent home for parents to see. Our revised Calculation Policy has been uploaded to our website.

We also have an 'Open Door' policy and welcome parents in when they have any issues or want to talk to us about any concerns they have.

Governor Support - Our maths governor meets regularly with the subject leaders to discuss maths. Monitoring visits are made and data is shared and discussed. Challenging questions are asked of subject leaders and reports are written. Our maths governor supports us in many other ways such as going on more able maths days with our students.

Trust support - We work with other maths subject leaders and teachers to moderate work, share ideas and resources, develop calculation policies and share training and inset needs.