



Mathematics Policy at Fordbridge

At Fordbridge, we believe that mathematics is a key skill that helps us to make sense of the world around us. It enables children to understand and appreciate relationships and pattern in both number and space in their everyday lives. Through their growing knowledge and understanding, children learn to understand and apply their knowledge to solve real life problems.

Throughout history, various cultures have played a significant role in the development of mathematics, providing children with a unique and powerful set of tools to better understand the world around them. These tools include logical reasoning, problem-solving skills and the ability to think in abstract ways. It is important in everyday life, many forms of employment, science, technology, medicine, the economy and the environment.

Children's vision

At Fordbridge Community Primary School, we believe Maths is an important subject and skill, because it helps us to use maths knowledge in all areas of our lives. Learning maths, increases our understanding so we can apply our skills in real-life contexts. We often learn from mistakes and this improves our resilience, so we are always learning! We often get to practise our times tables on TTRS. Also, we get to practise our maths skills daily so we feel really confident.

Staff vision

At Fordbridge Community Primary School, we believe Maths is a key skill and creative discipline that helps the children understand the world by making links beyond the classroom experiences. It enables pupils to comprehend and appreciate relationships and pattern in number and shape. Through their growing knowledge and understanding, children learn to understand and apply their knowledge to solve real life problems. We use misconceptions as an essential part of the children's learning experiences and provide appropriate opportunities of challenge by encouraging application of taught concepts to problems before moving onto new content. This ensures that key skills are embedded into the children's long term memory.

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 have conceptual understanding and can recall and apply their knowledge rapidly and accurately to problems.
- 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.

At Fordbridge, we aim to:

- Foster a positive attitude towards maths, presenting it as an engaging and enjoyable subject where every child can experience success and satisfaction.
- Build mathematical understanding through structured, direct instruction focused on relevant learning objectives.

- Develop mathematical skills, knowledge, and the ability to quickly recall basic facts both mentally and with the support of pictorial representations, drawing on a range of calculation strategies.
- Promote the practical application of maths as a valuable tool in various school activities and, later, in adult life.
- Enhance children's ability to articulate mathematical concepts confidently, using accurate language and terminology.
- Cultivate an appreciation for the relationships and connections within mathematics.
- Encourage clear, logical thinking, promoting independence of thought and mental flexibility.

Implementation of Policy

In maths lessons, we use a variety of teaching and learning styles. Our principal aim is to develop children's knowledge, skills and understanding in mathematics.

Throughout all year groups, we follow the C-P-A teaching approach (concrete-pictorial-abstract). This is to ensure mathematics is taught to mastery showing depth and understanding of concepts taught, following White Rose.

Maths lessons should also:

- Encourage visualisation: Can they see the number as an amount?
- Encourage verbal communication: use 'talk to your partner' in every lesson.
- Develop a 'can do' attitude in our children, especially when problem solving and pattern investigating.
- Enable pupils to confidently reason about their mathematics, using a suitable range of mathematical vocabulary, recognising its importance for communication and deepen thinking.

Early Years Foundation Stage

From the beginning of Nursery, we give all children the opportunity to talk and communicate in a widening range of situations and to practise and extend their range of vocabulary and numeracy skills using the Early Years Foundation Stage as a tool. The children have the opportunity to explore, enjoy, learn about, and use mathematics in a range of situations. Mathematics is planned on a half-termly basis and assessed using the criteria from the Early Learning Goals as well as Key Performance Indicators. Mathematics is taught both as a discrete subject and within the whole Early Years Curriculum to give children opportunities to use their numeracy skills in real life situations.

Nursery

Nursery has a bespoke curriculum which has been carefully created to support the development of mathematical concept and number appropriate to the age and stage of development. Whenever possible, maths is integrated into class themes, such as a specific story. Mathematical concepts are reinforced through daily routines and integrated across all areas of learning.

Reception

Pupils experience daily mathematics through a combination of a short, focused sessions using "White Rose" and "Mastering Number." These sessions include oral, practical, and written work. An extended session is also taught weekly with a link to the current theme being taught across the curriculum. As with Nursery, maths is woven into daily routines and all learning areas.

Key Stages 1 and 2

Mathematics is taught for a minimum of 5 hours per week. As a school, we have adapted the 'White Rose' scheme of learning to suit the needs of our children. Two lessons a week are dedicated to arithmetic sessions to support the children's fluency. Children have regular access to programs like TTRS and Mastering Number (Reception, Year 1, and Year 2).

Planning

Throughout Years 1 to 6, the White Rose learning schemes are used, supplemented by additional resources, to create medium-term plans for each unit to support teacher's workload. These plans are designed around a mastery approach to teaching, placing a strong focus on numeracy. They ensure teachers stay aligned with the appropriate key stage, emphasising deep understanding before expanding to wider topics. The plans promote whole class teaching and provide ample time for incorporating reasoning, problem-solving, and fluency practice into the curriculum.

Fordbridge uses a variety of published materials to facilitate the teaching of mathematics but recognises the need for the teaching of maths to be 'scheme assisted not scheme driven'. Materials are regularly updated, as new and relevant items become available to support the children's learning. We recognise the importance to revisit topics regularly to revise and consolidate skills. This is done through weekly maths quizzes to support long term memory.

Assessment

We continually assess our children and recording their progress. Assessments guide teaching within an ongoing cycle of planning, instruction, and evaluation. We see assessment as an integral part of the teaching process and endeavour to make our assessment purposeful, allowing us to match the correct level of work to the needs of the children, thus benefiting the children and ensuring progress.

Day-to-day assessments

As part of the ongoing teaching and learning process, teachers will assess children's understanding, achievement, and progress in mathematics. This assessment may include observation, questioning, informal testing, and the marking and review of work. Learners will also be encouraged to assess and reflect on their own progress by recognizing their successes, learning from mistakes, and identifying areas for improvement. If a child is not secure in a concept, same day intervention will be implemented during lessons or in the afternoon to prevent them from falling behind.

End of unit assessment

At the end of a unit, children will complete a mini assessment. This will help evaluate their understanding of the unit and determine if any additional intervention or lessons are needed to reinforce the concept.

Termly assessment

Termly assessments in maths using Testbase are conducted to ensure students are progressing in line with their year group expectations. These assessments provide valuable insights into each child's understanding and help track their progress towards individual learning targets. The results are carefully recorded and shared with the Head Teacher and the maths Coordinator, allowing for a focused approach to support and intervention where necessary. This systematic monitoring helps ensure that each student's needs are met, and their mathematical development is continuously supported. This systematic monitoring ensures that each student's needs are met, and their mathematical development is continuously supported.

Reporting

All parents/carers receive an interim termly report of their child's progress and an annual written report on which there is a summary of their child's effort and progress in mathematics over the year. Parents also have opportunities to discuss progress at two parents' evenings. Additional meetings are held each term for children with additional needs to discuss individual progress and targets.

Monitoring and Review

To ensure best practice, the subject leader supports colleagues in their teaching, by keeping informed about current developments in mathematics, and by providing a strategic lead and direction for this subject; gives the headteacher

and governors an annual summary report in which they evaluate the strengths and weaknesses in mathematics and indicates areas for further improvement. The quality of teaching and learning in mathematics is monitored and evaluated by the subject leader and the Senior Leadership team as part of the school's agreed cycle of lesson observations.

Environment

Classroom environment supports both the learning and teaching of mathematics which is crucial to develop children's learning. The school strives to foster a stimulating mathematical atmosphere by:

- Developing and utilising working walls to aid instruction and learning during lessons.
- Implementing interactive displays that encourage mathematical thinking and discussion using mathematical vocabulary.
- Showcasing children's work to celebrate their achievements on 'Wow Walls'
- Offering a diverse range of resources for both teachers and students.

Equal Opportunities

Staff at Fordbridge endeavour to maintain an awareness of, and to provide for equal opportunities for all our children in mathematics. We aim to take into account cultural background, gender and special needs, both in our teaching attitudes and in the published materials we use with our children.

Special Educational Needs

We strive to fully include children with additional needs in daily mathematics lessons whenever possible. This inclusion allows them to benefit from the focus on mental strategies and to engage with their peers in demonstrating and explaining mathematical methods. For children with more severe needs, an individualised continuum will be followed to support their needs. In their planning, teachers will address these needs by using simplified or modified tasks and providing support staff as needed.

Role and Responsibilities of Mathematics Coordinator

Ensure teachers are familiar with White Rose and support them to modify lessons to suit the children's needs.

Monitor planning, teaching and learning in mathematics, to ensure continuity and progression.

Plan, coordinate, and facilitate professional development

Teach high quality demonstration lessons

Identify strengths and areas for improvement and to lead and drive improvements within the school.

Monitor standards in mathematics throughout the school, including SEN provision, LAC, etc.

Keep up to date with new initiatives and train staff on these.

Regularly feedback to the Headteacher and Governors on standards in mathematics

Local Authority moderator