



**MATHS
INTENT,
IMPLEMENTATION &
IMPACT**

INTRODUCTION

A high-quality mathematics education provides a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject.

Mathematics is important in everyday life. It is integral to all aspects of life and with this in mind we endeavor to ensure that children develop a healthy and enthusiastic attitude towards mathematics.

AIMS & INTENT

The intent of the Maths curriculum at Prenton Primary School is to foster a deep understanding of mathematical concepts, develop problem-solving skills, and cultivate a love for mathematics. Our curriculum aims to ensure that pupils become confident mathematicians who can apply their knowledge in real-life situations. We strive to provide high-quality teaching and learning experiences that promote engagement, challenge, and progression for all pupils, regardless of their starting points.

Just like The National Curriculum for Mathematics, we aim 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 are able to 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.

IMPLEMENTATION & DESIGN

High-Quality Curriculum

Our Maths curriculum is carefully designed to meet the needs and interests of our pupils, based on the National Curriculum guidelines for Mathematics. The curriculum is well-sequenced, ensuring a logical progression of skills and knowledge. It incorporates a range of teaching approaches, resources, and pedagogical strategies to ensure deep understanding and engagement.

Mastery Approach

We adopt a mastery approach to teaching Maths, with an emphasis on developing a secure foundation of mathematical understanding before progressing to more complex concepts. We provide concrete, pictorial and abstract representations of mathematical ideas. Regular opportunities for reasoning and problem-solving activities are embedded within our curriculum.

White Rose Maths

Children have a daily discrete Maths lesson following the White Rose Maths "schemes of learning". These provide sequential 'Blocks' of learning for the whole year, where children meet each area of learning each year, providing a spiral curriculum.

Each 'Block' provides sequential 'Small Steps' towards meeting curriculum outcomes. Teachers use professional judgment to decide how long to spend on each small step or whether they are needed for their cohort. Each 'Small Step' incorporates valuable support for teachers, including:

We use White Rose Maths as a framework for teaching because of its Concrete - Pictorial Abstract approach, which is fundamental to helping children build mental images in their heads, fully understand concepts and spot patterns easily.

We use the White Rose books for completing work although based on teacher judgment they may not be used every day. When used, children may start and complete different questions based on adaptive teaching. In KS1, teachers may choose to cut out specific questions for pupils to complete in their Maths book and may give out the questions one at a time to reduce cognitive overload and working memory in our younger pupils. This approach may also be used in KS2 with specific SEND pupils.

Lesson Structure

Flashback 4 -> Review Flashback 4 -> Teacher Input -> Activities*

*This may be work in pairs, groups or as an individual. It may involve practical work, completing work in their maths book, white rose booklet, whiteboards or iPads. This decision is made by the class teacher.

In F2 the lessons have a different structure and include a short whole class input delivered by the class teacher as well as carefully planned continuous provision activities. The teacher will also follow up the whole class input with group work each day.

Flashback 4

Our KS1 and KS2 lessons start with a “flashback 4”. This supports fluency and allows children to revisit and revise previously learnt objectives from their year group to ensure they know more and remember more. During a flashback 4, the teacher will also attempt to activate any prior knowledge relevant to the learning objective for today’s lesson.

Adaptive Teaching

We recognise that pupils have different starting points and varied learning needs. Adaptive teaching is embedded within our Mathematics lessons to ensure all pupils are appropriately challenged. We provide additional support for those who require it, and extension activities for more able pupils, ensuring every child reaches their full potential. Regular formative assessment informs our planning, allowing us to differentiate learning experiences effectively. When completing work in their White Rose book children may be given different questions to start on based on adaptive teaching.

Adaptive teaching and our mastery approach means that children will be working towards their year-group objectives. Children may use resources, images and adult support to achieve these objectives, others may be required to use the knowledge gained through the objectives to solve a range of problems in order to gain a rich breadth of understanding and develop the problem-solving skills identified above. The exception to this will be when children are working significantly below age-related expectations where this would be detrimental to their progress e.g. learning about numbers to one hundred if you are not secure in understanding your numbers to ten. In these cases, children will be given appropriate teaching and learning opportunities to address this first.

Effective Use of Resources and Technology

To enhance learning experiences and promote mastery, we utilise a range of concrete manipulatives, visual aids, and digital resources. This enables pupils to develop a deeper understanding of abstract concepts and fosters exploration and investigation. Technology, such as interactive whiteboards and educational software, is used purposefully to enrich learning and support individual progress.

Timely Intervention & Additional Support

We have a robust system of intervention in place to identify and support pupils who may be struggling in Maths. Early identification of gaps in understanding through regular formative assessments enables us to provide targeted intervention promptly. We offer additional support both within and outside of the classroom, ensuring pupils' needs are met and progress is sustained.

Memory Builder

One afternoon a week the children will have a 20 minute memory builder session focused on Maths. In this session children will practice skills, revise and revisit objectives from previous year groups. These objectives are based on the ready to progress criteria and allow staff to revise the key concepts from previous year groups with their children to once again ensure that they know more and remember more.

IMPACT

High Attainment & Progress

Our focus on mastery and strong foundations of mathematical understanding has resulted in consistently high levels of attainment and progress across the school. Pupils develop secure knowledge and skills, enabling them to apply mathematical concepts confidently in a range of contexts. Our tracking system evidences rapid progress for pupils, including those from disadvantaged backgrounds and with special educational needs.

Positive Attitudes & Love for Mathematics

Through engaging lessons, challenging tasks, and the celebration of achievements, we instill a positive attitude towards Maths in our pupils. They develop a genuine love for the subject, demonstrating enthusiasm and perseverance in their learning. Pupil voice surveys consistently highlight the enjoyment and appreciation for Maths amongst our pupils.

Critical Thinkers & Problem Solvers

Our Maths curriculum cultivates the development of critical thinking skills and problem-solving strategies. Pupil discussions, collaborative work, and open-ended tasks enable pupils to apply their mathematical knowledge to real-life scenarios. They confidently tackle complex problems, demonstrate resilience, and articulate their reasoning using appropriate mathematical language.

Inclusive Practice & Equal Opportunities

Our commitment to inclusion ensures that all pupils, regardless of their background or circumstances, thrive in Mathematics. We promote an inclusive environment that celebrates diversity and respects individual strengths and needs. Pupil progress in Maths is not influenced by protected characteristics, and we actively address any potential barriers to learning.

Positive Parental Engagement

We actively involve parents and carers in supporting their child's mathematical development. Regular communication, workshops, and resources for parents provide guidance on how to reinforce learning at home. This partnership enhances the impact of our Maths curriculum and contributes to sustained progress across all year groups.

In summary, our outstanding Maths curriculum is underpinned by a mastery approach, personalised learning experiences, effective use of resources, and timely interventions. The impact of our curriculum is evidenced through high attainment, positive attitudes, critical thinking skills, inclusivity, and strong parental engagement. Our commitment to excellence ensures that all pupils leave our school well-equipped mathematicians, ready for the challenges of secondary education and beyond.

