Alexandra Park Primary School
Care, Aspire, Achieve

Mathematics Subject Report 2025-2026

Mathematics Vision

At Alexandra Park Primary School, we believe mathematics is far more than the acquisition of procedures and number skills. Mathematics provides children with a powerful way of understanding and interpreting the world around them. It develops logical reasoning, critical thinking, communication, resilience and problem-solving, all of which are essential for success both within education and beyond.

Our ambition is for every child to leave Alexandra Park as a confident mathematician who can reason, explain, justify, connect ideas and apply their understanding in unfamiliar situations. We want children to develop both mathematical competence and mathematical curiosity. Success in mathematics is not defined solely by obtaining correct answers, but by understanding why methods work, recognising underlying structures and communicating mathematical thinking clearly.

Through carefully designed teaching, deliberate practice and rich mathematical discussion, we strive to create learners who approach mathematics with confidence and who recognise its value in everyday life, further study and future careers.

Curriculum Development

Over the last academic year, our mathematics development work has moved beyond curriculum coverage and procedural fluency alone. Our focus has shifted towards improving the quality of mathematical thinking that takes place in every classroom.

Whilst White Rose Mathematics continues to provide the backbone of our curriculum sequence, significant work has been undertaken to strengthen the way lessons are designed and delivered. Greater emphasis has been placed on identifying the mathematical structure within concepts rather than allowing children to become overly dependent on surface features of questions.

Across the school, teachers are increasingly using carefully planned variation to draw children's attention to important mathematical relationships. This enables pupils to recognise connections, identify patterns and develop a deeper understanding of concepts.

Examples include:

- Exploring equivalent fractions through multiple representations.
- Encouraging children to reason about multiplicative relationships.
- Connecting area and volume through shared mathematical structures.
- Comparing different division contexts to determine the most appropriate interpretation of the quotient.
- Developing understanding of ratio through links with fractions, scaling and proportional reasoning.

This focus on structure has allowed children to become more flexible thinkers and has strengthened their ability to transfer learning between different areas of mathematics.

Reasoning and Mathematical Communication

A significant area of curriculum development has been the promotion of mathematical reasoning.

Children are increasingly expected to:

- Explain their thinking.
- Justify methods and answers.
- Critique the reasoning of others.
- Evaluate mathematical statements.
- Explore misconceptions.
- Construct and test conjectures.

Reasoning opportunities are now intentionally embedded throughout lessons rather than being treated as an additional challenge activity. Teachers regularly use prompts such as:

- Always, Sometimes, Never
- True or False
- Convince Me
- Which One Doesn't Belong?
- What Is The Same? What Is Different?
- All, Some, None

These approaches encourage deeper thinking whilst supporting pupils in developing mathematical language and confidence when discussing ideas.

Pupil voice indicates that children feel increasingly comfortable discussing mathematics and explaining their thinking to both peers and adults.

Fluency

Fluency remains a key priority across the school; however, our understanding of fluency has evolved.

Rather than viewing fluency solely as rapid recall, we recognise fluency as the ability to select efficient strategies, make connections and apply known facts flexibly. We see it as the 'phonics of maths'

White Rose Fluency Bee continued to support the development of number sense in younger pupils, whilst older pupils engage in retrieval practice and focused fluency activities that strengthen underpinning knowledge required for future learning.

This work has supported improvements in pupils' confidence and has reduced cognitive load when tackling more demanding reasoning and problem-solving tasks.

Assessment

Assessment continues to be used to inform teaching rather than solely measure attainment.

Teachers utilise:

- Daily formative assessment.
- In-class questioning.
- Retrieval activities.
- Pupil discussions.
- White Rose termly assessments.
- Arithmetic assessments.
- Number fluency assessments.

Increasingly, assessment activity is focusing on identifying misconceptions, gaps in conceptual understanding and barriers to reasoning rather than solely identifying procedural errors.

Information gathered through assessment informs:

- Responsive teaching.
- Pre-teaching.
- Same-day intervention.
- Curriculum adjustments.
- Pupil progress discussions.
- Lesson starters focused on gaps and retrieval

This ensures support is targeted precisely where it is needed.

Leadership and Professional Development

A substantial focus throughout the year has been the development of reasoning all the time and oracy in maths.

Professional development has increasingly centred upon:

1. Utilising reasoning stems such as:
    - Always, Sometimes, Never
    - Must, could, Can't
    - True or False
    - Which one doesn't belong?

2. Deepening understanding through shared talk and thinking.
3. Developing metacognition for problem solving with some of our older pupils (ahead of development in 2026 – 27).
4. Effective questioning.

This work has strengthened staff confidence when discussing mathematics and supported greater consistency in classroom practice.

As a leadership team, we have also continued exploring curriculum implementation through the lens of the Education Endowment Foundation implementation guidance, ensuring development priorities are carefully explored, prepared and implemented rather than introduced too quickly.

Impact

Evidence collected through lesson visits, pupil voice, book looks and assessment information suggests a number of positive developments:

- Increased mathematical discussion within lessons.
- Improved use of mathematical vocabulary.
- Greater pupil confidence when explaining reasoning.
- More consistent opportunities to justify thinking.
- Improved curriculum coherence across year groups.
- Reduced reliance on procedures without understanding.
- Increased challenge through reasoning and problem solving.
- Stronger identification and addressing of misconceptions.

Most importantly, children are increasingly viewing mathematics as a subject of thinking, reasoning and exploration rather than simply calculation.

Priorities for 2026-2027

1. Further Develop Mathematical Reasoning

Continue to embed reasoning opportunities within daily teaching so that children routinely conjecture, justify and prove mathematical ideas.

2. Strengthen Curriculum Coherence

Further identify and make explicit the structural links between different mathematical domains to improve transfer of learning. Make things clearer and more explicit for teachers what is statutory and non-statutory for their year group.

3. Further Develop Mathematical Communication

Increase opportunities for structured mathematical talk so that pupils become increasingly precise and confident in communicating mathematical ideas.

4. Increase Greater Depth Outcomes

Through improved reasoning, representation and problem-solving opportunities, increase the proportion of pupils achieving Greater Depth Standard whilst maintaining strong attainment at Expected Standard.

5. Develop number fluency

Through an improved teaching programme for number fluency, we will look to develop the foundational knowledge our pupils require. Number fluency is the 'phonics for maths'.

Outcomes for 2025-2026

We once again continued our impressive outcomes at the end of KS2, significantly outperforming national statistics. The percentage of our pupils meeting the expected standard was 90%, with our 50% of our pupils achieving beyond the Year 6 level attaining greater depth. Furthermore, we were in the top 1% of the country for the progress our pupils made in maths through our school. All of this reflects the exceptional hard work and dedication to maths across the entire staff at Alexandra Park Primary School.