# Mathematics

Vision: "Every child a mathematician, built on secure mathematical foundations."

**Intent: What do we hope to achieve by teaching Maths?**

*(Ambition, access and secure foundations for all pupils)*

During their time at Binfield C.E. Primary School (V.A.) we aim for all pupils to experience being and developing the characteristics needed to be a mathematician. We believe that **all pupils**, regardless of starting point or background, are entitled to a **high-quality mathematics education** that enables them to succeed and thrive.

**We believe that the 'Essential Characteristics' of a Mathematician are:**

*(The knowledge, skills and behaviours pupils develop over time)*

- A commitment to and passion for the subject.
- A secure understanding of mathematical concepts underpinned by coherence.
- The ability to recognise, make, and apply connections across mathematical concepts
- A broad range of skills in using and applying mathematics.
- Fluent knowledge and rapid recall of number facts.
- The ability to show initiative in solving problems in a wide range of contexts.
- The ability to reason, generalise, and justify thinking.
- The ability to think independently and to persevere when faced with challenges, valuing mistakes as learning opportunities.
- Fluency in performing written and mental calculations and mathematical techniques.
- A fluent use of mathematical vocabulary.

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**We intend pupils at our school to:**

*(What pupils will know, remember and be able to do)*

- Enjoy Maths lessons and be enthusiastic about their learning.
- Understand that Maths is an interconnected subject. They are able to make links between concepts and explain them verbally and pictorially.
- Develop strong mathematical oracy, so they can articulate ideas, explain reasoning and justify solutions clearly, using precise mathematical vocabulary and full sentences. Spoken language is explicitly taught and modelled as part of learning mathematics.
- Be able to show initiative in solving problems in a wide range of contexts. They have the ability to reason, generalise, conjecture and make sense of solutions.
- Be able to reason from known facts and apply their tables and number-bond knowledge flexibly.
- See Mathematics as an engaging, creative subject. They enjoy exploring mathematical ideas and show a passion for the subject. They take pride in their work.
- Be able to explore, calculate and prove using a variety of resources and models, as well as abstract notation. This enables fluency and confidence in written and mental calculation.

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**Implementation: How is Maths organised and taught?**

*(Curriculum design, sequencing and high-quality teaching)*

In Reception, the mathematics curriculum is based on the Statutory Framework for the Early Years Foundation Stage (2025), and from Years 1–6 it follows the National Curriculum (2014).

In Reception, mathematics is a distinct area of learning within the curriculum, with a strong emphasis on securing early number sense and mathematical language, including a key focus on subitising (recognising quantities without counting).

In Years 1–6, the mathematics curriculum is organised to ensure that key knowledge and skills are taught, revisited, and built upon over time, with regular opportunities for retrieval practice to deepen and embed learning.

We follow the principles of a **Mastery Curriculum** throughout the school and use the long-term planning set out by **White Rose Maths**. Learning is carefully sequenced so that mathematical knowledge and skills are introduced in small, connected steps and built upon over time. Each class is taught at least one Maths lesson each day. Mathematical skills are also taught, revisited and applied across the wider curriculum, such as PE, Computing, Science and in our outside learning are the 'BOLE'.

When being introduced to new mathematical concepts, using a range of resources, models and representations, moving towards more abstract methods. Consistent models and representations are used across the school to expose mathematical structure and support secure conceptual understanding before progression.

Lessons are designed to enable children to notice the interconnected nature of mathematics, identify links between concepts, and apply these when **solving mathematical problems**. Teaching develops **fluency** alongside **reasoning**, enabling pupils to apply known facts **flexibly**. Teachers systematically check understanding, **address misconceptions**, and adapt teaching promptly so that pupils keep up with learning and develop confidence, perseverance, and independence.

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**'Power Tools for Learning'**

*(Evidence-informed practice that strengthens teaching, oracy and retention)*

'Power Tools for Learning' reflect our commitment to **evidence-informed teaching practice**. These approaches draw on the **EEF Good Teaching Toolkit** and support staff in delivering **high-quality, inclusive and well-sequenced mathematics teaching**.

Our approaches focus on:

**High-quality talk and oracy is essential to a maths lesson**– spoken language is explicitly taught and modelled in mathematics lessons. Pupils articulate ideas, explain reasoning, justify solutions and respond to others' thinking using precise mathematical vocabulary and full sentences.

**Retrieval practice** – key mathematical knowledge is revisited frequently so that learning is embedded in long-term memory. Retrieval activities strengthen fluency and reveal misconceptions early.

**Checking for understanding** – teachers actively seek to understand what pupils know and can do, adapting teaching promptly to address gaps and misconceptions.

**Cognitive challenge and independence** – learning is designed to promote deep thinking through purposeful challenge and effective questioning, supporting pupils to persevere, reflect and work independently when tackling complex or unfamiliar problems.

**Purposeful use of technology** – technology is used across the school to support the teaching of mathematics through visualising mathematical structures, modelling concepts and methods, providing opportunities for retrieval and feedback, and deepening pupils' conceptual understanding.

Together, these approaches ensure that **effective teaching strategies are embedded consistently**, that pupils are supported to **keep up rather than catch up**, and that all pupils develop the skills to **think deeply, communicate clearly and learn independently**.

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**Impact: What difference does it make and how do we know?**

*(Achievement, progress and readiness for next steps)*

In determining the impact of the Mathematics curriculum, we ask:
**'How well have pupils developed the essential characteristics of a mathematician?'**

This includes pupils' secure foundations, fluency, reasoning, confidence in spoken explanation and preparedness for the next stage of learning.

**Assessment**

In Reception, pupils are assessed using the **EYFS Development Matters Framework** through ongoing observation, discussion and questioning. Teachers draw on their professional knowledge of each child to make **termly judgements** about pupils' understanding and progress.

In Years 1–6, assessment focuses on **progress over time**. Children complete **termly White Rose Maths assessments**, which support teachers in identifying strengths, addressing gaps early and informing future teaching and planning. Assessment information is used formatively to ensure pupils continue to build securely on prior learning and are supported to keep up with the curriculum.

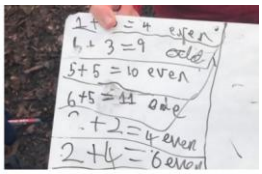
**Feedback**
*(Pupil voice and stakeholder perspectives)*

Feedback from pupils, parents and other stakeholders is gathered both informally and formally and is used to understand pupils' confidence, enjoyment and attitudes towards Mathematics, as well as to inform ongoing curriculum development.

This is supported by external evaluation. The school's Ofsted inspection (September 2023) recognised Mathematics as a strength, noting the shared approach to language and modelling used by staff to build pupils' knowledge and skills over time, the inclusive classroom environments, and the effective identification of learning needs to support all pupils, including those with SEND.

Following a parent maths workshop, parent feedback further reflects this positive impact. One parent commented:

*“Good to get an understanding of how maths is taught and the overall structure, as well as t*




*he approach and language used.”*

Together, pupil voice, parent feedback and external validation demonstrate a positive culture for Mathematics, where pupils feel confident, supported and motivated to succeed.