



Brindle St James CE Primary School

Mathematics Policy

March 2025

National Curriculum Aims

The National Curriculum for Mathematics seeks to ensure that all pupils:

1. Achieve fluency in the core aspects of Mathematics through varied and frequent practice, enabling them to tackle increasingly complex problems over time, thus fostering a conceptual understanding alongside the ability to recall and apply knowledge swiftly and accurately.
2. Engage in mathematical reasoning, pursuing lines of enquiry, formulating relationships and generalisations, and developing robust arguments, justifications, or proofs using precise mathematical language.
3. Solve problems by applying their mathematical knowledge to a range of routine and non-routine challenges with growing sophistication, including the ability to decompose problems into manageable steps and demonstrating perseverance in seeking viable solutions.

Subject Intent, Implementation, and Impact

Intent

At Brindle St James', our objective is that:

- Children develop into confident, competent, and independent mathematicians.
- They cultivate a profound conceptual understanding of Mathematics and its interconnected components, enabling application of their learning in diverse contexts.

- The ability to articulate, discuss, and elucidate their thought processes using appropriate mathematical vocabulary is nurtured throughout the school.
- All children maintain a positive mindset towards Mathematics.
- Learners evolve into resilient and curious individuals, acquiring the competencies necessary for lifelong engagement with Mathematics.

Implementation

To meet our children's needs and facilitate a mastery approach, we have implemented a robust programme of study supported by the White Rose Power Maths scheme. This DfE-approved mastery scheme utilises high-quality textbooks and aligns with our ongoing engagement with DfE-funded Maths Hubs. Each mixed or single-age year group adheres to a medium-term plan designed to build a solid foundation of deep mathematical understanding through small, cumulative steps. Formative assessment is integral to each lesson, allowing class teachers to make timely adjustments to planning that best serve our pupils. Our curriculum employs a concrete, pictorial, and abstract approach, enabling children to explore and demonstrate their mathematical understanding through a blend of collaborative and independent tasks. Collectively, these elements ensure that children thoroughly grasp their learning and can apply knowledge across various contexts. The overarching aim of our Maths mastery curriculum is to foster a deep, long-term, secure, and adaptable understanding of the subject, enabling children to achieve fluency in calculations, cultivate confidence in mathematical reasoning, and refine their problem-solving abilities.

The lesson structure is as follows:

- **Power Up:** Each lesson commences with a starter activity designed to enhance fluency in key number facts, reinforcing essential skills such as multiplication tables, number bonds, and place value.
- **Discover:** Exploration of new concepts begins with a practical, real-world problem that sparks curiosity, allowing children to collaborate on its resolution. They uncover Mathematics through storytelling, affording time to explore and discuss potential strategies.
- **Share:** This teacher-led interactive phase follows the Discover activity and showcases the diverse methodologies available for solving a single problem. Targeted questioning and the modelling of answers using various representations bolster learners' mathematical thinking.
- **Think Together:** Children tackle a series of problems represented pictorially, subsequently transitioning to abstract forms. Each teacher employs the "I do" (teacher modelling), "We do" (group collaboration followed by class discussion),

and "You do" (independent problem-solving) approach to support pupils in addressing each question.

- **Practice:** Using their Practice Books, children engage in independent work while the teacher circulates to monitor progress.
- **Questioning:** Thoughtful questioning is planned and implemented by the teacher to either strengthen or deepen a child's understanding. Challenge activities are offered to those requiring further enrichment, and targeted interventions are conducted during or after lessons to address any misconceptions.
- **Reflect:** At the conclusion of each lesson, the class reconvenes to engage in a task that facilitates the teacher's assessment of children's understanding of the target concept. Every lesson provides an opportunity for pupils to demonstrate mastery and achieve greater depth within each unit. The practice stage presents rich and sophisticated problems alongside scaffolded, exploratory tasks, permitting children to progress at their individual pace. Rather than accelerating pupils onto the following year's curriculum, opportunities are provided for them to deepen their knowledge within their current year's expectations.

Impact

Our implementation of the Power Maths mastery scheme has resulted in children expressing enthusiasm for Mathematics and using mathematical language accurately during discussions. Frequent opportunities for dialogue are embedded within each lesson, and teachers continuously employ formative assessment techniques to gauge pupils' understanding. Instant feedback is given to facilitate further learning and effectively bridge gaps. Children's progress serves as clear evidence of the teaching and learning impact, evaluated through formative assessments (including class discussions, questioning, activities, and paired and independent tasks) and summative assessments conducted each term using Power Maths evaluations.

The desired outcomes of the Maths curriculum at Brindle St James' are:

- Mastery of key learning outcomes pertinent to their year group's scheme of learning.
- Good or outstanding progress from each child's starting point on their mathematical learning journey.
- Fluency in multiplication tables.
- Proficient use of mathematically rich vocabulary during Maths lessons.
- The ability to apply key written and mental strategies for problem-solving as outlined in the calculation policy.

To measure these outcomes, we utilise:

- Subject leader lesson observations.
- Pupil voice across the school.
- Book scrutiny.
- Pupil progress meetings to analyse data.
- Monitoring of intervention impacts.
- Data analysis.

Mathematics Curriculum Planning

Through consistent utilisation of the Power Maths scheme in all classrooms, we ensure adherence to a mastery approach to Mathematics, effectively covering National Curriculum outcomes for each year group.

Medium and long-term plans are provided through the Power Maths scheme for all year groups and are implemented with fidelity. Given the composition of our classes, some units may be taught using a "ping pong" approach across year groups or as block units, allowing for the sequential teaching of multiple year groups' content.

Short-Term Planning

Daily lesson planning is adapted from the White Rose Power Maths scheme to meet the distinctive needs of the children. Class teachers deliver and complete the designated learning units daily. The scheme builds upon prior knowledge, providing opportunities to enhance skills, knowledge, and understanding. Additional challenges cater to children ready for further depth, ensuring that there are no ceilings on learning.

Early Years Foundation Stage (EYFS)

At Brindle St James, we adopt the "Master the Curriculum" scheme for Preschool, which perfectly aligns with the White Rose Maths framework and mastery approach. In Reception, we embrace the mastery approach to Mathematics through the Power Maths scheme along with "Mastering Number" to enhance number fluency. All lessons are adapted, where feasible, to accommodate children's needs, and we relate mathematical elements of their activities to the objectives outlined in the Early Learning Goals, which guide curriculum planning for children aged three to five. We ensure that every child has the opportunity to cultivate their understanding of number, measurement, pattern, shape, and space through varied activities, encouraging them to enjoy, explore, practise, and discuss Mathematics with confidence, both in playful and more formalised group settings.

Assessment

Formative Assessment

Employing assessment for learning (AfL), teachers assess the children's mathematical work on a lesson-by-lesson basis. AfL strategies enable teachers to adapt their daily instruction in line with the mastery approach directly, meeting children's needs and aligning with Power Maths lesson progression. AfL also informs where additional support may be necessary for pupils to grasp concepts taught in a lesson. This intervention may occur on the same day by either the class teacher or a teaching assistant, with follow-up support potentially being delivered the subsequent day if required. During lessons, support can be implemented on a one-to-one basis or in small guided groups, depending on the teacher's evaluation. Mastery teaching demands that educators confidently understand each child's knowledge and their misconceptions; therefore, effective and practical assessment is crucial. Formative assessment within Power Maths comprises the "Think Together" component, wherein teachers assess and address misconceptions collectively. In EYFS, assessments are conducted using the Early Years checkpoints and the "Early Years Foundation Stage Profile" criteria, with ongoing evaluations throughout the academic year.

Summative Assessment

Summative testing across all year groups provides valuable insight into a child's attainment. Attainment levels are categorised as follows:

- **Working Towards:** indicating that a child has not yet reached the required level.
- **Expected Standard:** confirming that a child has achieved the expected level.
- **Greater Depth:** recognising that a child has exceeded the expected level.

Summative assessments may include standardised test papers, Power Maths end-of-unit evaluations, end-of-key-stage SATs, Year 4 multiplication tables checks, and EYFS baseline assessments. For a comprehensive assessment of a child's overall attainment in Year 1, 3, 4, and 5, teachers will triangulate evidence from summative and formative assessments using NFER papers alongside evidence from pupils' books. For Years 2 and 6, SATs practice papers will also be considered.

Times Tables

By Year 4, all children are expected to recall multiplication table facts up to 12 times 12 within six seconds. Multiplication tables will be taught during lessons, with assessments conducted through Times Table Rock Stars. Pupils are encouraged to practise their times tables at home as part of their homework.

Calculation Policy

At Brindle St James, we implement the Power Maths Calculation Policy. Please see separately.

SEN and Equal Opportunity

Our school is committed to providing an inclusive curriculum that caters for children with Special Educational Needs across both ends of the spectrum. Differentiation within lesson activities will be tailored to meet the specific needs of students, clearly indicated on teachers' plans. We shall ensure that children from all genders, races, and ability groups are included and motivated through various teaching styles and experiences. Through our utilisation of a mastery scheme for Maths instruction, all children are empowered to make good progress.