

Maths Policy

March 2025 – March 2027

Castle Bromwich Infant & Nursery School Mathematics School Policy



Our Vision:

At Castle Bromwich Infant and Nursery school, we believe mathematics is fundamental in supporting all pupils' development and to help them succeed in life. We believe in promoting maths lessons as a positive, fun and enjoyable subject, which relates to pupils' everyday life in many different ways. We aim to support pupils to develop confidence, feel happy and build a positive self-image as learners of maths and see themselves as mathematicians from the start. We encourage all pupils to persevere, talk about their maths learning and to experience success. We aim to ensure all our pupils are able to: become fluent in the fundamentals of mathematics, reason mathematically and solve problems by applying their mathematics. Our maths curriculum is carefully mapped to ensure there is; clear and planned progression that builds on and revisits prior learning, flexibility to enable children to master concepts, and this sufficiently prepares them for the next stage of their learning.

Our approach:

At CBINs we follow a Teaching for Mastery approach to teach our mathematics lessons. This approach is based on the expectation that all children can achieve highly in maths. Achieving highly in maths requires that children:

- Have a deep and flexible understanding of mathematical concepts;
- Are fluent in number facts;
- Develop fluency in calculation procedures.

We take our year group teaching objectives from the National Curriculum for Mathematics (2014). We plan our maths in topics to ensure pupils master a topic before moving on. The topics are also sequenced carefully so pupils can build on their learning. We use high quality resources such as, the White Rose Hub Schemes of Work, NCETM and Maths No Problem resources to plan the sequence of objectives and the small steps needed to meet the National Curriculum Objectives. More details of how we teach calculation methods are specified in the Calculation Policy.

Teaching for Mastery Principles:

- It is achievable for all – we have high expectations and encourage a positive 'can do' mindset towards mathematics in all pupils, creating learning experiences which develop children's resilience in the face of a challenge and carefully scaffolding learning so everyone can make progress.
- Deep and sustainable learning – lessons are designed with careful small steps, questions and tasks in place to ensure the learning is not superficial.
- The ability to build on something that has already been sufficiently mastered – pupils' learning of concepts is seen as a continuum across the school.
- The ability to reason about a concept and make connections – pupils are encouraged to make connections and spot patterns between different concepts (E.g. the link between multiplication and division and division and fractions) and use mathematical language, which frees up working memory and deepens conceptual understanding.
- Conceptual and procedural fluency – teachers move mathematics from one context to another (using objects, pictorial representations, equations and word problems). There are high expectations for pupils to learn times tables, key number facts (so they are automatic) and have a true sense of number.
- Problem solving is central – this develops pupils' understanding of why something works so that they truly have an appreciation of what they are doing rather than just learning to repeat routines without grasping what is happening.
- Challenge through greater depth - rather than accelerated content, (moving onto next year's concepts) teachers set tasks to deepen knowledge and improve reasoning skills within the objectives of their year group.

Time Allocation:

In KS1, teachers plan for 4 maths lessons per week. In addition to maths lessons, teachers also deliver a 10-15minute maths meeting. You can find more detail on maths meeting in the maths meeting policy. If pupils require intervention to help support them to keep up with their peers in maths lessons, they will then receive additional support from their teachers.

Homework:

We ask their parents support their child through revising and practicing key number facts and times table facts as part of their homework. Key number facts can be found on our school website or provided to parents from their child's class teacher. To help parents with revising key number facts the school have purchased a subscription to the website NumBots, where pupils can practice their skills through fun interactive games. Pupil's class teachers will provide parents with further information and log in details.

Lesson structure:

We do not have a fixed lesson structure. However, lessons are designed using teacher's knowledge of metacognition strategies, to help pupils apply and retain their learning. Lessons aim to assess children's understanding and strategies and support them with activating and applying prior knowledge, whilst also learning new concepts. The teacher controls the whole-class teaching with a series of small steps that incorporate appropriate representations, manipulatives and paired, group or individual tasks. This section will usually involve more than one representation and some aspect of variation such as changing models or connections with other areas of maths. Lessons may also include whole-class practice tasks that may incorporate intelligent practice and some variation in tasks and representations. Children are challenged to record their understanding of the maths as well as finding answers.

Representations and manipulatives:

Teachers will use consistent representations for mathematical concepts. A representation may be concrete (equipment or manipulatives), pictorial (diagrams and drawings) or abstract (symbols and digits). Children should also use the language of maths to describe their representations precisely. More details are found in the calculation policy, but these will include:

- Part-whole diagrams
- Arrays for multiplication and division
- Place value charts
- Place value equipment

Differentiation:

Children work together on the same tasks in maths lessons, except where the children have a Personal Learning Plan that necessitates different provision. Children work in groups that are not organised by prior attainment or labels such as 'highers' and 'lowers'. We do not offer children a choice of tasks. Children are encouraged to see 'the answer as the beginning' and to focus on the representation of their mathematical thinking. A small number of questions done to a deep level will produce more cognitive challenge than a large number of repetitive questions, or larger numbers with no increase in demand.

Going Deeper:

Where children show a secure grasp of mathematical concepts during a lesson they are challenged to go deeper by explaining their understanding, representing it in different ways or apply it to greater cognitive challenge. It is often appropriate to raise the cognitive challenge while making the numbers 'easier' to encourage children to focus on strategies rather than answers. We do not accelerate children onto new content.

Marking and feedback:

We do not carry out large amounts of marking or written feedback in maths. Most feedback will be immediate, during the lessons, and verbal feedback does not need to be recorded. Children may mark their own answers when practical. More information can be found in our Marking and Feedback policy.

Assessment:

In addition to class teachers own ongoing informal assessment, children complete end of block tests in the form of a quiz to apply what they have learnt. The result of these quizzes are used to support teachers summative assessments, or to identify children who need extra practice or support to consolidate.

