

Maths at Brent Knoll Church of England Primary School

Intent

The national curriculum for mathematics aims 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 develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- **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.

At Brent Knoll School we are committed to ensuring that all pupils master the key concepts of mathematics, appropriate for their age group, in order that they make genuine progress with secure understanding. We believe the Concrete, Pictorial, Abstract (CPA) approach develops a deep sustainable understanding of maths in pupils and use consistent visual models, manipulatives and written methods across the school.

Implementation

From September 2022, Early Years are trialling the use of Number Sense Maths alongside the NCETM Numberblocks support materials. Early Years Number Sense ties in with the Statutory Framework for Early Years and Foundation Stage 2021 and the Early Learning Goals. The Early Years Number Sense session will be the daily whole class session, running alongside daily mathematical routines and other planned maths provision including adult led small group teaching, continuous provision and targeted support.

From September 2022, in Key stages 1 and 2, we are now embedding our use of the NCETM Curriculum Prioritisation in Primary Maths materials that we trialled last year. Each year group has a Curriculum Map outlining the progression of small steps for each unit over the year and with links to the slide decks, spine materials, ready to progress criteria and NCETM assessment questions. We will continue to adapt the time given to each unit depending on the needs of the children and have included White Rose small steps and resource links to support those areas where more detailed guidance from NCETM has not been provided.

This provides us with a coherent sequencing of the primary maths curriculum and a more streamlined approach, while allowing us to provide a breadth of mathematical experiences by drawing from other content such as NRich and Maths no Problem.

We use proven interventions led by experienced TAs to support children who are not making the expected progress in maths. This year we are focusing on how we are challenging all children throughout our lessons and the breadth of 'challenge' activities we are providing for our more able learner to enable to apply their understanding at greater depth.

Despite our mixed age classes, maths lessons take place separately in single year groups. Sessions are planned and learning is assessed by teachers and are taught primarily by teachers but also our experienced teaching assistants.

Impact

Assessment for learning has the most powerful impact on children's learning and this takes place in every lesson with teachers and teaching assistants using their observations of children's learning to adapt their questioning and learning tasks during lessons. Verbal feedback given during lessons moves children's learning forward along with marking in books and written comments. This year we are focusing on how we can use these interactions to provide challenge to all learners. Feedback from teaching assistants and the teacher's own observations are used when teachers planning future lessons to ensure continued progression.

Each child in KS1 and KS2 has the small steps for the unit they are working on in their maths book. These steps will be reviewed by teachers throughout a unit and in KS1, progress shared verbally. In KS2, children will be involved in reviewing their progress through these small steps. This gives teachers a clear picture of progress and future targets and this information is used when completing Insight, our school tracking system.

Teachers also plan opportunities to use the assessment questions from the *Mathematics Guidance: Key stages 1 and 2* to assess children against the Ready to Progress criteria and this information is also used to inform our teacher assessment judgements on Insight.

At the end of the summer term, teachers in years 3, 4 and 5 use the White Rose maths assessments to help inform their end of year teacher assessment judgements, while the year 2 and year 6 SATs are used in those year groups. For children in Early Years and year 1, informal assessment activities are used to inform teacher assessment.