Chambersbury Primary School

Chambersbury Primary School Maths Curriculum Statement

Without mathematics, there's nothing you can do. Everything around you is mathematics, Everything around you is numbers.
Shakuntala Devi

Curriculum Intent

Our School Vision

Our aim is for Chambersbury Primary School to be a place where each individual is cared for deeply, valued and respected – Where everyone in the school community has the opportunity to learn in an environment full of excitement and fun, so they can grow up to be "change-makers" and "assets" in the community, society and world they live in.

At Chambersbury, we strive to enable all our children to become competent mathematicians through a curriculum driven by inspiration and aspiration. We aspire to embed the skills and processes necessary to enable children to use and apply their learning in a variety of contexts. We aim to develop children's enjoyment of maths and provide opportunities for them to build and secure a deep, sustainable, conceptual understanding of maths.

Our approach to the teaching of mathematics develops children's ability to work both independently and collaboratively. Through mathematical talk, children will develop the ability to articulate and explain their thinking and reasoning. By the end of Key Stage two, children will leave our school as emotionally resilient lovers of mathematics, which will enable them to thrive in their future lives as assets to society.

All children, including those with additional needs, are planned for so that all children achieve their potential. High quality teaching is our first response to challenges, and a wide range of further support is available to help children with SEND and EAL.
See supporting document: Supporting Solutions for Barriers to Learning.

Classrooms are language rich, to help teach children new words, as well as apply them in context. There are age appropriate displays scaffolding key learning. These are relevant to the year's programme of study.
See supporting document: Vocabulary Progression in Maths

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Curriculum Implementation

We follow White Rose Maths Schemes of Learning to support maths mastery teaching. We feel it provides a coherent learning progression through small steps, a range of representations and structures, opportunities for fluency, variation and opportunities for deep mathematical thinking (NCETM 5 key principles).

"In summary, a mastery approach…

- **Puts numbers first:** Our schemes have number at their heart, because we believe confidence with numbers is the first step to competency in the curriculum as a whole.
- **Puts depth before breadth:** we reinforce knowledge again and again.
- **Encourages collaboration:** children can progress through the schemes as a group, supporting each other as they learn.
- **Focuses on fluency, reasoning and problem solving:** it gives children the skills they need to become competent mathematicians."

White Rose

See supporting documents: Curriculum Overview, Progression in Mathematics (EYFS & Y1-6) & Calculation Policy

In Maths at Chambersbury, teachers:

- Teach maths daily as a dedicated lesson.
- Reinforce arithmetic skills as a morning activity once a week, using resources from MathsBot.
- Use WRM overviews to ensure appropriate coverage is achieved over the academic year.
- Elicit the children's starting points within each topic through ongoing formative assessments to understand the children's prior knowledge.
- Enable all children to work to achieve their age-related learning intention.
- Include a range of concrete, pictorial and abstract representations to enable deeper understanding.
- Begin all lessons with a fluency focus, drawing on assessment for learning to identify gaps. These short starters focus on: a counting skill, securing calculation, maintaining previously taught learning and retrieving previous learning to support the new concepts being taught.
- Facilitate discussions interspersed with collaborative and explorative tasks which enable the teacher to gauge children's prior knowledge and unpick misconceptions.
- Address misconceptions immediately throughout the lesson.
- Instruct and model key learning.
- Provide guided learning for identified learners to enable them to access and succeed with independent learning.
- Provide relevant and purposeful independent learning opportunities. During this time, the teacher will use open-ended questions to assess and develop the children's mathematical understanding. Deepening opportunities are proved for those children who have developed the concept being taught.

- Plan opportunities for a structured reflection at the end of each lesson.
- Ensure that the content is taught at the same pace through differentiation of depth, rather than by acceleration to new content. The learning needs of individual pupils are addressed through careful scaffolding, skilful questioning and appropriate rapid intervention, in order to provide the necessary support and challenge.
- Ensure children know how to set out written work. Careful presentation will help pupils spot patterns and identify their own mistakes, and give them a sense of pride.
- Formatively assess throughout the lesson; the teacher regularly checks pupils' knowledge and understanding and gives live, verbal feedback accordingly.
- Within Reception, teachers follow the Early Years and Foundation Stage curriculum, supported by White Rose Maths resources and small steps. This entails a lot of 'hands-on' learning but, most importantly, we also plan carefully to ensure the children have concrete and pictorial experiences of number. Our intent is for children to become experts in the numbers 1-10 then 1-20. We want them to be confident with counting but it is also key for later mathematical development that they are beginning to add and subtract as well as show a deep, conceptual understanding of place value.
- Supplement children's learning through online resources, primarily:
  - Mathletics to support home learning and reinforce concepts taught in school
  - Times Table rockstars to support the learning and development of fluency with times tables
  - A range of other age appropriate educational games and websites including Topmarks, Maths Frame and BBC resources.

Maths learning is also reinforced throughout the wider curriculum, with skills and concepts being reinforced through other subjects. For example: statistical data collection, representation and analysis in Science, comparing data and measurements in Geography, taking measurements in PE.

Curriculum Impact

The children will have acquired a deep, conceptual understanding of maths. They will be able to make connections between concepts and contexts. They will be able to articulate their understanding confidently. We evaluate the children's learning through a variety of formative and summative assessments to ensure our curriculum is effective.

After each unit of teaching, children complete a short end of unit test which covers the key concepts taught in the previous weeks. This enables teachers to identify possible misconceptions for the class or targeted groups, as well children that may need extra support. Each term, children complete two more in depth papers: one covers arithmetic and calculation questions and the other covers reasoning and

problem solving. Both papers reflect the learning taught so far and are designed to resemble the actual SATs to help increase pupils' familiarity and reduce SATs anxiety. Teachers use these to assess where the children are at, identify gaps in learning and support children to securing and moving their learning on. Children that may need extra support can also be identified to able pre-teaching before upcoming topics, to support their learning and prevent the attainment gap from widening.

Aside from progress shown in internal data and SATs, we know that we are achieving our aims when we:

- See high quality work in books and on display
- Have high quality conversations with children about maths and its applications, where children speak positively about their own learning journey
- Enable all children, including those with additional needs and from disadvantaged backgrounds, to make good progress and reach their potential in mathematics