North Cerney C of E Primary School



Maths Curriculum Statement

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1. INTENT

The 2014 National Curriculum for Maths aims to ensure that all children:

- Become fluent in the fundamentals of Mathematics
- Can reason mathematically
- Can solve problems by applying their Mathematics

At North Cerney, these skills are embedded within Maths lessons and developed consistently over time. We ensure that children can recognise the importance of Maths in the wider world and apply their mathematical skills and knowledge confidently in a range of different contexts. We want all children to enjoy Mathematics and to experience success in the subject, with the ability to reason mathematically. We develop children's curiosity about and an appreciation of the beauty and power of Mathematics.

2. IMPLEMENTATION

The content and principles underpinning the 2014 Mathematics curriculum and the Maths curriculum at North Cerney reflect those found in high-performing education systems internationally. These principles and features characterise this approach and convey how we implement our curriculum.

- Teachers reinforce the expectation that all children can achieve high standards in Mathematics.
- Most of the children progress through the curriculum content at the same pace.
- Differentiation is made by emphasising in-depth knowledge and through individual support and intervention.
- Teaching is underpinned by methodical curriculum design and supported by carefully crafted lessons and resources to foster deep conceptual and procedural knowledge.
- Practice and consolidation play a central role. Carefully designed variation within this builds fluency and understanding of underlying mathematical concepts.
- Teachers use precise questioning in class to test conceptual and procedural knowledge and assess children regularly to identify those requiring intervention so that all children keep up.

To ensure consistency and progression, we use the DofE approved White Rose Maths scheme. The school's ongoing engagement with DGAT's Maths leaders programme ensures that staff at all levels understand the pedagogy of the approach. In KS1 and to a lesser degree in KS2, the children will use physical objects to help solve Maths problems. Teachers use thoughtful questions to draw out children's discussions and their reasoning.

Lessons have a structure of three sections

Fluency - the children complete rapid questions; developing fluency of a concept

Problem solving - the children are challenged to find the odd one out or explain if a statement is true or false; they are exposed to a variety of different problem solving activities

Reasoning - the children apply the skill being developed to a problem-solving situation or as part of a multi-step problem. Children may also be required to use the skill with larger numbers or real-life situations. They give reasons for their answers and discuss their findings in depth. They explore why an answer may be correct or incorrect and give their own answers with reasons.

Mathematical topics are taught in blocks, to enable the achievement of 'mastery' over time. Each lesson phase provides the means to achieve greater depth. All children have the opportunity to deepen their knowledge. Additional support and resources are available to those children that need it.

In addition to the main maths lesson daily, the children will also undertake 3minute maths or Times Tables Rockstars as part of the EMA (Early Morning Activities) on rotation with other activities such as handwriting.

The children will also do Key Instant Recall Facts daily during morning activities or maths sessions. The facts will also be sent home to parents to practice. Every term these will be tested and checked and then gaps will be identified. These gaps will be filled through the provision of maths booster groups and recap lessons in class.

Maths homework is set online for all children from Reception to Year 6 via Mathletics and success on this is celebrated via certificates at achievement worship. Children from Year 2 to Year 6 also have Times Tables Rockstar accounts and are expected to spend time on this each week at home.

3. IMPACT

The school has a supportive ethos, and our approaches support the children in developing their collaborative and independent skills, as well as empathy and the need to recognise the achievement of others. Children can underperform in Mathematics because they think they can't do it or are not naturally good at it. The Mastery approach of 'fluency, problem solving and reasoning' addresses these preconceptions by ensuring that all children experience challenge and success in Mathematics by developing a growth mind-set. Regular and ongoing assessment informs teaching, as well as intervention, to support and enable the success of each child.