



Mathematics - Intent and implementation statement

Vision

Mathematics is an important creative discipline that helps us to understand and change the World. We want all pupils at Bowerhill Primary School to experience the beauty, power and enjoyment of mathematics and develop a sense of curiosity about the subject.

At Bowerhill, we foster positive 'can do' attitudes. We believe all children can achieve in mathematics, and teach for secure and deep understanding of mathematical concepts. This is captured in our motto and embedded in our school aims. Success in overcoming challenges and problems builds resilience and curiosity. We use mistakes and misconceptions as an essential part of learning and provide challenge through rich and sophisticated problems before attempting new content.

Curriculum Intent

We aim for all pupils to:

- Become fluent in the fundamentals of mathematics so that they develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- Reason mathematically by following a line of enquiry and develop and present a justification, argument or proof using mathematical language.
- Solve problems by applying their mathematics to a variety of problems with increasing sophistication, including in unfamiliar contexts and to model real-life scenarios.
- Have an appreciation of number and number operations, which enables mental calculations and written procedures to be performed efficiently, fluently and accurately.

Implementation

Mathematics lessons

Each lesson focuses on a manageable step of new learning based on the National Curriculum statements.

Typical Lesson design:

1) Teach It: Live modelling of the new learning with explicit use of potential misunderstandings

2) Practise It: All children practise together provided with support & challenge

3) Do It: Up to 5 examples – 5 'What it is' or '3+2 'What it is/What it's also'. This task is to focus on the procedural fluency required.

4) Secure It: 1 or 2 Misunderstandings (True/false, Spot the mistake etc). These tasks are to focus on the conceptual understanding required.

5) Deepen It: Apply understanding to solve new problems. These tasks are to focus on the development of mathematical thinking.

6) Review It: Lesson Recap: Key Concept Statement and Key Vocabulary

Opportunities to revisit, or pre-teach, aspects of maths are provided at other times during the school day to ensure that concepts are embedded. This is especially important when specific children have not acquired the concept in the main lesson.