Burnham on Crouch
Primary School
Connected to our world

Intent, Implementation and Impact Statement Mathematics

Intent

At Burnham-on-Crouch Primary School we believe the habits of thinking mathematically are life-enriching. Through the teaching of Mathematics, we teach children how to make sense of the world around them by developing their ability to calculate, reason and solve problems. Our aim is for children to understand the relationships and patterns in both number and space in their everyday lives. We view Maths as a creative and highly interconnected subject essential to everyday life, Science, Technology and Engineering, and necessary for most forms of employment. It is vital to be numerate to participate fully in society and democratic processes. At Burnham-on-Crouch Primary School we ensure that every young person, regardless of background, has a rich and meaningful Mathematics education.

Through the teaching of Mathematics, our aims are:

• Success for all - Every child can enjoy and succeed in Mathematics. A supportive environment enables pupils to develop resilience and confidence.

• Deeper understanding - Pupils must be given time and opportunities to fully explore Mathematical concepts. They use metacognition and a structured build based on prior learning to generate new success.

• Problem-solving - Identifying, applying and connecting ideas enables pupils to tackle new and more complex problems. These create a sustainable connection between theory and the real world.

• Mathematical language - Mathematical language strengthens conceptual understanding by enabling pupils to explain and reason.

• Multiple representations – Concrete, Pictorial, Abstract approach (CPA) is a highly effective approach to teaching that develops a deep and sustainable understanding of maths in pupils.

Implementation

At Burnham-on-Crouch Primary School, Mathematical progression follows the National Curriculum. This is underpinned by the three main principles that create and sustain depth.

The three principles of the dimensions of depth are:

1. Conceptual Understanding

Mathematics tasks are about constructing meaning and making sense of relationships. Our children deepen their understanding by representing concepts using objects, pictures, symbols and words. Different representations stress and ignore different aspects of a concept and so moving between representations and making explicit links between them allows them to construct a comprehensive conceptual framework that can be used as the foundation for future learning. Lessons are sequenced to help the children build a journey through different topics. These topics are then sequenced in a logical progression that allows learners to establish connections and draw comparisons. Support and challenge for all is achieved by adding and removing scaffolding to support learners. Multiple representations are carefully selected so that they are extendable within and between different areas of Mathematics. Using these rich models encourages learners to develop different perspectives on a concept.

2: Language and Communication

Mathematical language strengthens conceptual understanding by enabling our pupils to explain and reason. This is carefully introduced and reinforced through frequent discussion to ensure it is meaningfully understood. Talk is an essential element of every lesson. Key vocabulary is introduced at the beginning of each lesson and time is dedicated to developing confidence with specific vocabulary as well as verbal reasoning.

3: Mathematical Thinking

We support pupils to develop Mathematical thought– to be systematic, generalise and seek out patterns. The creation of a discursive environment and considered use of questions and prompts are important elements of encouraging learners to think like Mathematicians.

Impact

We measure impact every day through formative assessment that informs daily planning. Teachers feedback during the lesson and carry out interventions where needed. Summative, half-termly Maths assessments evidence how children have independently applied the Maths skills taught. Teachers input this assessment on Target Tracker and monitor progress towards National Curriculum objectives as well as the progress of targeted intervention groups. Moderation meetings are held and throughout the year, the Senior Leadership Team carry out learning walks, observations, book looks, planning sessions and pupil progress meetings so that we can monitor the quality of teaching throughout the school. Our integrated approach ensures strong outcomes.