

# SUBJECT OVERVIEW - MATHS



In maths at Broadstone Hall, we want every child to:

- **enjoy** mathematics
- become a **confident** mathematician, able to see the mathematics that surrounds them every day
- have a **secure** and **deep** understanding of fundamental mathematical concepts when they leave us to go to secondary school
- enjoy **developing vital life skills** in this subject.



## Core Threads

- 1. Fluency:** becoming fluent in the fundamentals of mathematics through varied and frequent practice. Developing conceptual understanding of key concepts and the ability to recall and apply knowledge with increasing speed and accuracy.
- 2. Reasoning:** noticing patterns, relationships and generalisations, and being able to verbalise their thinking, giving justification or proof using mathematical language.
- 3. Problem Solving:** Applying their mathematics to a variety of different problems with increasing sophistication. Breaking problems down into simpler steps, and developing resilience and perseverance in seeking solutions.

## BHPS Learning Values

Resilience – Opportunities to challenge themselves to learn new things, know that it's safe to make mistakes, it's ok to get 'stuck' and require support, and to develop strategies for what to do in these situations.

Independence – Opportunities to work on familiar tasks independently, building self-confidence and having time to practice and develop automaticity.

Confidence – Opportunities to explore open-ended activities that provoke thinking and creativity – less emphasis on right and wrong answers. Opportunities to challenge, question and reflect on learning.

Cooperation – Opportunities to work with peers in pairs or small groups to explore concepts and challenges and generate creative thinking.

## Links to Reading

- Mathematical Vocabulary
- Reading mathematical problems
- Maths stories and picture books

## Inclusive Practice

We believe that maths is for everyone and plays an integral part in all our daily lives.

We follow a CPA approach (Concrete → Pictorial → Abstract) to learning maths. New concepts are introduced using concrete objects and pictorial representations before developing into their abstract/symbolic representation. We aim for children to be actively involved in their learning, i.e. physically moving concrete resources where applicable.

We encourage children to talk with their peers about their learning in maths lessons. In general, and where appropriate, children are seated in mixed ability groupings to enable discussion and collaboration, enabling those with more confidence the opportunity to elaborate their thinking, whilst providing those with less confidence the opportunity to ask questions that they may not feel comfortable sharing with their teacher.

## Long Term Learning

Use of 'Can I still...?' warm ups at the start of every maths lesson to practice previously learnt skills and transfer these to long term memory.

Separate 'fluency' sessions to learn Key Instant Recall Facts such as number bonds and times tables.

Use of cooperative learning strategies to discuss, understand and embed key concepts and mathematical vocabulary.

## Sequence of Learning

We follow the White Rose Maths Schemes of Learning in order to develop a coherent and progressive pathway through the mathematics. Learning is broken down into small, connected steps, building on what pupils already know. In EYFS, children explore maths through active exploration and their everyday play-based learning. They are taught key concepts and develop number sense using a hands-on practical approach. In Key Stage 1, the focus is to ensure that pupils develop confidence and mental fluency with whole numbers, counting and place value. They will also learn to recognise, describe and draw a range of shapes, and use a range of measures to describe and compare different quantities. In Key Stage 2, children will extend their understanding of the number system to include larger numbers, as well as fractions, decimals and percentages. There is a focus on fluency and recall of multiplication tables. They will also develop their ability to solve a wider range of problems and extend their knowledge and understanding of geometry and measure.