



## Our Intent

At Hormead, Mathematics is seen as a fundamental and integral part of the school curriculum and is taught both as a discrete subject and across the wider curriculum. Our intention is that children **love learning** and are excited by Mathematics as we believe developing a positive attitude to this subject is essential in order to be successful. Our curriculum caters for the needs of all individuals to become successful in not just school but in their future working lives. Whatever their ability or starting place, children are able to confidently use and apply mathematical concepts across a variety of situations. Essentially, our ethos at Hormead is that all children can be successful in the study of mathematics. *Maths is for everyone! Everyone can!*

We aim to provide all pupils with some direct teaching every day, which is oral, interactive and stimulating. Teaching styles and lesson structure provide opportunities for pupils to consolidate their previous learning, use and apply their knowledge, understanding and skills, pose and ask questions, investigate mathematical ideas, reflect on their own learning and make links with other work. A typical lesson will comprise of a 'Get Ready' and 'Let's Learn' activity followed by independent work using the 'White Rose' recommended activities where appropriate.

## Implementation

### What does Maths look like at Hormead?

We teach maths in blocks, to enable the achievement of 'mastery' over time. Each lesson phase provides the means to achieve greater depth, with children who are quick to grasp new content being offered rich and sophisticated problems, as well as exploratory, investigative tasks, within the lesson as appropriate.

Children are not streamed by ability because we expect all children to be given the opportunity to achieve age related expectations. Mastery teaching provides our children with the time to acquire a deep and transferable understanding of mathematical concepts. We appreciate how important it is for our children to become fluent in all aspects of calculation, therefore, one session per week is dedicated to practicing arithmetic/times tables.

We expect children to clearly articulate their ideas and thoughts and reasoning processes, enabling deeper learning. Our growth mindset approach means we expect children to make mistakes, analyse them and learn from them, justifying and explaining as they do this. At each stage of learning, children should be able to demonstrate a deep, conceptual understanding of the topic and be able to build on this over time.

### White Rose Schemes of Learning

At Hormead, every class from Nursery to Year 4 follow the White Rose Scheme of Learning as a starting point for our planning. The core of White Rose Maths is the maths mastery approach, which focuses on depth rather than acceleration, ensuring that key concepts are fully grasped before moving on. We like the way White Rose ensure there are enough small steps in the learning so that children are able to master each concept. We believe the White Rose scheme will also improve the consistency of resources and vocabulary used throughout year groups, including Reception, and it aligns to the end of term assessments the children complete. White Rose links to the National Curriculum aims for each year group and by following this scheme, it ensures all topics are covered. If you would like to explore White Rose further, the link below will take you to an Advice and Guidance page for parents.

<https://whiterosemaths.com/advice-and-guidance&start>

### Consolidation of Previous Learning

During 'Start of the Day' activities, children complete a range of Mathematical tasks, including: arithmetic, specific times tables, recap of previous learning and activities to close the gaps. These allow our children to practice the skills previously taught with additional support and guidance where needed. Each Maths lesson will start with 'Get Ready' or 'Flashback' questions that allow the children to practise a concept from the previous lesson, the previous week and topics from earlier in the year – maybe even last year.

It is also an opportunity for teachers and teaching assistants to assess and address any misconceptions. Children should be given many opportunities to make links between embedded and new learning.

## **Vocabulary**

At Hornead, children from Early Years through to Year 4 are taught key vocabulary which enables them to develop the confidence to explain mathematically.

## **Concrete, Pictorial and Abstract (CPA Approach)**

To support Mathematics, we have a range of concrete resources, including: counters (place value and double sided), Base10, tens frames, number strings, Numicon and many other manipulatives. Once children have grasped the concept using concrete resources, pictorial representations (including pictures and diagrams) are used to develop their understanding further. Abstract Mathematics then allows the children to explore concepts in different contexts using all of the knowledge and understanding developed through the CPA approach. For example, on a unit of fractions, teachers might introduce fractions through visual representations and hands-on activities before progressing to more abstract concepts. This ensures that students have a concrete understanding before moving on.

## **Times Tables**

Each class completes daily times tables practise, focusing on rapid recall and linked division facts. In order to advance individual children's maths skills in school and at home, we utilise Numbots in Reception and year 1 and Times Tables Rock Stars from year 2 onwards for multiplication practise, application and consolidation.

## **Introducing the concept**

New concepts are introduced through adult directed teaching in 'let's learn.' Children are taught in small steps building up to the new learning. They are given time to think and solve problems as a whole group with working partners and adult support. Scaffolds (such as new vocabulary and representations are included on the Maths Working Wall) When teachers are confident children have grasped the new learning, they are set on a 'your turn' task. The questions, tasks and activities children are set support assessment and are either done in workbooks or in their maths books.

## **Assessment**

Staff at Hornead continuously monitor pupils' progress against the attainment for their age. Formative and summative assessments are used to inform planning to ensure gaps in learning are narrowed and that we are providing excellent provision for every child.

## **Continued Professional Development (CPD)**

At Hornead, we are committed to staff development through CPD. We are proud to be in our fifth year of sustaining a maths mastery programme through the Maths Mastery Hub. Staff attend regular training workshops with the Maths Hub. The subject leader attends subject leader updates and feeds back to staff in meetings. This year we held a Maths Mastery planning and monitoring INSET with all the local Rib Valley schools to share good practise.

## **Teaching and learning in the Early Years**

Mathematics is one of the specific areas in the EYFS. At Hornead, we recognise that maths is an integral part of day to day life and we instil mathematical concepts not only in our direct teaching and opportunities in child-initiated play but we also thread mathematics through our daily classroom routines. We want our children to not only develop a love of maths but also have the opportunity to learn practical skills through real life application.

For example, we count at every possible opportunity. We count how many children are present, when lining up, counting out milk and fruit, recording the date and counting out how many hands up. We look at concepts of sharing, more/ less, size and measurement at every available opportunity and carefully promote that all adults reinforce and strengthen children's knowledge.

Our mathematics curriculum stems from the EYFS framework using the White Rose planning scheme, Master the Curriculum resources and Numberblocks in a fun, engaging and positive way. We often use song, rhyme and links through our topics learning. Children learn to count confidently, develop a deep understanding of the numbers to 10, the relationships between them and the patterns within those numbers.

In addition, our curriculum includes rich opportunities for children to develop their spatial reasoning skills across all areas of mathematics including shape, space and measures.

We know how important it is that children develop positive attitudes and interests in mathematics, look for patterns and relationships, spot connections, 'have a go', talk to adults and peers about what they notice and not be afraid to make mistakes.

In both Nursery and Reception, it is important children are given the opportunity to learn maths through practical, active, hands-on experiences. We implement this approach into our focused lessons and our continuous provision areas. After learning new concepts, children are given opportunities inside and outside the classroom to apply their understanding through challenges and enhancements to best support our children to internalise and master their learning.

## Impact

**Outcomes:** We strive for all learners to be at the expected standard at the end of the academic year; with some learners exceeding this and achieving greater depth. For those children who have gaps in their learning, we will support them through lessons and interventions with the aim of narrowing the gap.

**Monitoring:** Through book shares and lesson observations every half term, we recognise that staff are delivering Maths lessons to the children that inspire, challenge and support all learners. The children have opportunities to access the learning at all levels and are becoming confident in their ability.

**Knowledge and Understanding of Maths:** At Hormead, the children are continuously developing their knowledge and understanding of Maths throughout the school day. They can talk confidently about their learning and are keen to share their success.

**Application of Maths to the World Around Them:** Children are aware of the importance of learning different mathematical concepts and how it links to the world around them.