



Maths at Headcorn Primary School

INTENT

At Headcorn Primary School, our maths curriculum is driven by a clear intent: to empower our pupils with the tools and mindset to navigate and mathematise the world around them. From the outset we embed a mastery curriculum for all children ensuring a broad progression and the ability to communicate mathematically. Through this mastery approach, we strive to instil in our pupils a deep understanding of mathematical concepts, automaticity of number sense, building upon fluency, variation, representations and mathematical thinking. Building upon these “Five Big Ideas” of mastery, we aim to equip our students with the confidence and capability to be confident mathematicians not only in daily maths learning but also in their broader experiences and learning across the curriculum. We emphasise fluency in mathematical skills, providing ample opportunities for practice and application to build memory and recall. Through exposure to varied representations and contexts, children are enabled to develop a flexible and adaptable approach to problem-solving and their reasoning. We are passionate about mathematising our children’s world and do this by developing procedural fluency and numerical automaticity, conceptual understanding and an inherent enthusiasm for Maths.

Aspiration:

At Headcorn Primary School we set high expectations for all pupils, encouraging them to strive for a deep understanding of mathematical concepts and to continually challenge themselves to reach new levels of proficiency in their mathematical learning. An ambitious mastery approach fosters a growth mindset, giving all pupils the opportunity to learn and achieve together at the same pace, solving problems and reasoning with confidence, and with those who grasp concepts rapidly being challenged with mathematically deeper problems. We aspire for all pupils to enjoy a positive attitude to maths, a fascination for and excitement in the subject, and a sense of discovery in their maths learning. At Headcorn Primary School our Community Code is “learning for life” and we want to equip our children with the knowledge, skills and understanding of how maths is used in the wider world, making rich and varied real-life connections to empower them for their future.

Inclusion:

Inclusivity is at the heart of our maths curriculum at Headcorn Primary School. We recognise and celebrate the diverse strengths and abilities of all students, ensuring that every child feels valued and supported in their mathematical learning journey. Through the mastery approach we strive to meet the individual needs of each student, regardless of their background or level of prior attainment. Our curriculum embraces a variety of teaching strategies and approaches to cater for the diverse learning styles and preferences of our students, fostering a culture of belonging and empowerment where everyone can thrive mathematically.

Resilience:

Building resilience is a fundamental aspect of our maths curriculum at Headcorn Primary School. We understand that learning mathematics can be challenging at times, and we encourage students to embrace setbacks and persevere through difficulties. Through a mastery approach, we provide students with opportunities to develop resilience by tackling complex problems, making mistakes, and learning together from them. We foster a supportive learning environment where mistakes are viewed as valuable learning opportunities and where students are encouraged to approach challenges with determination and resilience. By cultivating a growth mindset and nurturing a culture of resilience, we empower our students to overcome obstacles and to develop the confidence and resilience needed to excel in maths and beyond.



Implementation

EYFS

From the outset at Headcorn Primary School, we immerse children in maths, ensuring that there are opportunities to play, talk, read and explore mathematically. Through hands-on exploration, engaging activities, songs, chants and rhymes we encourage children to develop a deep understanding of mathematical concepts and number fluency. We provide rich learning experiences that promote mathematical language development, critical thinking and memory. We implement the Early Years Framework by using the NCETM's Mastering Number in Early Years and Key Stage 1, with broader opportunities through continuous provision throughout the environment. We use and offer the Numbots online platform to engage families and offer opportunities for practice at home.

Key Stage 1

At our school, in Years 1 and 2, the National Curriculum for Key Stage 1 is followed using White Rose, tailored to meet the needs of our children. A 'ping-pong' approach to teaching allows all children to travel together through the lesson with regular checkpoints to ensure understanding and to develop ideas through questioning. Manipulatives are used consistently to support and develop understanding. Building on from Early Years, Mastering Number in Early Years and Key Stage 1 continues to develop number sense, fluency and automaticity in daily sessions. Children have opportunities to apply mathematical skills across the curriculum. We use and offer the Sumdog online platform to engage families and offer opportunities for practice at home and for pre-assessment.

Key Stage 2

In Key Stage 2, we build upon the National Curriculum for Mathematics through a continuation of a consistent 'ping-pong' approach, emphasising the development of mastery alongside fostering greater independence and reasoning skills. We use White Rose materials, adapted to meet the requirements of the National Curriculum for daily maths lessons. Alongside this a focus on fluency and number sense is developed through the daily use of NCETM's Mastering Number at Key Stage 2 (for Years 4 and 5), and arithmetic sessions (for Years 3 and 6) and Times Table Rock Stars. In Year 4 the Mastering Number Programme develops the children's deeper understanding of times tables using the 'say, understand and explain' approach in preparation for the statutory Multiplication Tables Check (MTC). Through a tailored approach, we provide opportunities for students to deepen their understanding of mathematical concepts and apply them in a range of contexts. Our curriculum focuses on enhancing fluency, not just in calculations but also in problem-solving and reasoning. We encourage students to explore multiple strategies, fostering flexibility and adaptability in their mathematical thinking. Manipulatives are used to support understanding and to offer opportunities to develop and demonstrate a higher level of thinking. Children have opportunities to apply mathematical skills across the curriculum. We use and offer the Sumdog online platform to engage families and offer opportunities for practice at home and for pre-assessment.