Maths Curriculum Intent, Implementation, and Impact Statement

Intent

At Inkpen Primary School, our aim is to foster a love of mathematics and to develop confident, resilient learners who can apply mathematical skills and knowledge in real-life contexts. We have high expectations for all our pupils, ensuring that every child, regardless of their starting point, is supported and challenged to reach their full potential in mathematics.

We believe that a strong foundation in mathematics is essential for future success, both in education and in life beyond school. Our intent is to provide a rich, engaging, and coherent maths curriculum that promotes curiosity, deep understanding, and the ability to think logically and critically.

At Inkpen Primary School, our intent for our curriculum is to:

- **Build Solid Mathematical Foundations:** - We ensure that every child has a secure grasp of core mathematical concepts, with a particular focus on number sense, fluency, and problem-solving. As pupils progress through the school, they will develop a mastery of mathematical skills that can be applied across different areas of learning

- **Develop Problem Solvers:** - We encourage pupils to approach challenges with confidence, resilience, and a growth mindset. Problem-solving and reasoning are integral parts of our curriculum, enabling pupils to apply mathematical thinking in diverse and complex situations.

- **Promote Mastery and Deep Understanding:** - We believe that mastery of mathematics is achieved through depth rather than speed. Our teaching emphasizes fluency, conceptual understanding, and the ability to make connections between different areas of mathematics. We provide opportunities for pupils to revisit and consolidate learning regularly to ensure retention and deeper understanding.

- **Support All Learners:** - We are committed to ensuring that all children, including those with Special Educational Needs and Disabilities (SEND) and those who are higher attainers, receive the appropriate support and challenge to succeed in maths. Our teaching is inclusive and adapted to meet the diverse needs of our learners. We provide additional support, such as targeted interventions, to ensure that all pupils can make progress and close any attainment gaps.

- **Make Maths Relevant and Engaging:** - We strive to make mathematics meaningful by relating it to real-world contexts, helping pupils to see the relevance of their learning. Through engaging, practical activities, we aim to show pupils how mathematics applies to their everyday lives, as well as its importance in other subjects such as science, technology, and art.

- **Foster Mathematical Communication:** - Pupils are encouraged to explain their thinking, use precise mathematical language, and justify their reasoning. This emphasis on communication helps to deepen their understanding and builds their confidence in discussing and exploring mathematical ideas.

- **Instil a Love of Learning:** - We want our pupils to see mathematics not just as a school subject, but as a powerful tool for understanding the world. Through creative teaching and engaging lessons, we aim to inspire a passion for maths that stays with them throughout their lives.

At Inkpen Primary, we believe that every child is a mathematician. Our ambition is to equip all pupils with the skills, knowledge, and mindset they need to succeed in mathematics and to develop a lifelong appreciation for the subject.

Implementation

At Inkpen Primary School, we implement the White Rose Maths scheme as the foundation for our maths curriculum. White Rose Maths provides a structured, coherent, and cumulative approach to learning, enabling pupils to develop a deep understanding of mathematical concepts. The scheme emphasises mastery and fluency while promoting reasoning, problem-solving, and real-world applications of mathematics.

Key aspects of our implementation:

- **Mastery Approach:** White Rose Maths follows a mastery approach, ensuring that pupils fully grasp mathematical concepts before moving on. Lessons are designed to build on prior knowledge, with regular opportunities for consolidation and deeper exploration. Each block of learning covers key areas of mathematics in a logical sequence, allowing pupils to progress through small, manageable steps.
- **Fluency, Reasoning, and Problem-Solving:** Every lesson within the White Rose Maths scheme focuses on developing fluency in mathematical skills, reasoning through exploration and questioning, and applying knowledge to problem-solving situations. This three-pronged approach ensures that children not only understand mathematical concepts but are able to apply them in varied contexts.

- **Concrete-Pictorial-Abstract (CPA) Model:** We use the CPA model to introduce and embed mathematical understanding. Pupils first explore mathematical concepts using concrete manipulatives (e.g., counters, blocks), then represent these ideas pictorially, before moving on to more abstract methods such as number sentences and symbols. This approach ensures that learners of all abilities build a solid conceptual understanding before moving on to more complex ideas.
- **Differentiation and Inclusivity:** White Rose Maths provides flexibility in teaching so that lessons can be adapted to meet the diverse needs of our pupils, including those with SEND and higher attainers. We use varied questioning, resources, and scaffolding to ensure that all children are challenged and supported appropriately. For pupils needing additional help, targeted interventions are used to close gaps in understanding, ensuring that they remain on track with their learning.
- **Assessment for Learning:** Regular formative assessments are embedded within our lessons to gauge pupils' understanding and inform future teaching. Teachers use questioning, quizzes, and mini-assessments to identify misconceptions early, enabling timely interventions. Termly assessments provide a summative overview of pupil progress, aligned with the White Rose scheme's assessment tools.
- **Professional Development:** Our staff regularly engage in CPD to ensure they have a deep understanding of the White Rose Maths approach. This enables them to deliver lessons with confidence and ensure consistent, high-quality teaching across all year groups.

Impact

The impact of implementing White Rose Maths at Inkpen Primary School is evident in our pupils' confidence, progress, and attainment in mathematics. By following a mastery approach, we have seen significant improvements in the depth of understanding and fluency in core mathematical concepts.

Key impacts include:

- **Improved Mathematical Fluency:** Pupils are developing strong number sense and fluency with key mathematical skills. This is reflected in their ability to recall number facts quickly and accurately, as well as their growing confidence in tackling calculations and mental maths.
- **Deeper Conceptual Understanding:** The use of the CPA model, coupled with regular opportunities to revisit and consolidate learning, has resulted in pupils beginning to develop a much deeper understanding of mathematical concepts. They are able to articulate their reasoning, make connections between topics, and apply their knowledge to solve complex problems.
- **Increased Problem-Solving Skills:** Pupils are becoming more resilient and capable problem solvers. White Rose Maths encourages them to tackle problems with a systematic approach, promoting perseverance and creativity

when faced with challenging tasks. This has led to an increase in pupils' confidence in applying their mathematical understanding in real-life situations.

- **Closing Attainment Gaps:** Through the structured and progressive nature of White Rose Maths, we are narrowing attainment gaps for disadvantaged pupils and those with SEND. The use of scaffolding, differentiated tasks, and timely interventions has enabled pupils who require additional support to make significant progress and keep pace with their peers.
- **Consistency and Progression:** The White Rose Maths curriculum has provided us with a consistent framework across the school, ensuring that pupils experience continuity in their learning journey from year to year. This clear progression has contributed to improved outcomes at the end of key stages, with children meeting or exceeding national expectations.
- **Increased Enjoyment and Engagement:** By making maths engaging, accessible, and relevant to real-world contexts, pupils have developed a positive attitude toward the subject. They approach lessons with enthusiasm, curiosity, and a willingness to challenge themselves.