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Primary

## 1. Intention

The intention of our mathematics curriculum is to ensure that all pupils develop a deep understanding and mastery of key mathematical concepts. Through the use of the *Mastery Approach* and *White Rose Maths* scheme of learning, we aim to:

- **Develop a deep understanding of concepts**: Ensure that pupils acquire a thorough understanding of mathematical ideas rather than simply learning them for short-term recall.
- **Promote fluency, reasoning, and problem-solving**: Encourage pupils to become fluent in the fundamentals of mathematics, developing the ability to reason and solve problems confidently.
- **Build confidence and resilience**: Provide all pupils with the opportunity to develop a love for mathematics, with a growth mindset that allows them to tackle challenges with perseverance and determination.
- **Provide a progressive curriculum**: Ensure that mathematical learning is sequenced carefully, building on prior knowledge and skills as pupils progress through their primary years.
- **Prepare pupils for future learning**: Equip pupils with the necessary skills and understanding to build upon in secondary education and beyond, ensuring they have a solid foundation for future mathematical learning.

By using the Mastery Approach, we ensure that pupils learn each concept in depth, revisiting topics until full mastery is achieved. The White Rose Maths framework supports this with clear progression, enabling effective delivery of the curriculum across each year group.

## 2. Impact

The impact of this approach will be evident in the following ways:

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- **Pupil Progression**: By the end of each year group, pupils will have developed the necessary skills to apply mathematical concepts fluently and accurately, both in isolated tasks and real-life situations.
- **High Attainment for All**: Pupils of all abilities will be supported to achieve mastery. Those who grasp concepts quickly will be challenged with extension activities, while those who require more support will have access to intervention strategies to ensure they catch up and master content.
- **Problem-Solving and Reasoning Skills**: Pupils will be able to apply their mathematical knowledge to solve a variety of problems and reason logically. They will use mathematical language to explain their thinking and justify their methods.
- **Positive Attitude to Mathematics**: Pupils will develop confidence and enjoyment in mathematics, overcoming challenges with a growth mindset. They will be motivated to see mistakes as opportunities to learn.
- **Consistency Across the School**: The use of the White Rose scheme and the Mastery Approach ensures a consistent, high-quality approach to mathematics teaching across all year groups. Teachers will be equipped with clear planning tools, ensuring a uniform experience for all pupils.

## 3. Implementation

The implementation of the mathematics curriculum through the Mastery Approach and White Rose Maths will follow these key steps:

### Curriculum Design & Structure

- The curriculum will follow the White Rose Maths framework, which provides a structured and coherent pathway through the mathematical topics each year group is expected to cover. Each topic is broken down into small, manageable steps, allowing for a deep dive into each area.

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- The learning objectives for each topic will be broken down into *small steps*, allowing for deep, focused teaching before pupils move on to new content.
- We will ensure that all lessons incorporate the key principles of the Mastery Approach, including *concrete, pictorial, and abstract (CPA)* representations of mathematical concepts.
- The teaching sequence will follow a *'small step'* approach where concepts are revisited and built upon throughout the academic year. This enables the reinforcement of key skills to ensure all pupils achieve mastery.

**Teaching Methodology**

- **Concrete, Pictorial, Abstract (CPA)**: We will ensure that all pupils encounter mathematics through physical resources (concrete), representations (pictorial), and symbolic notation (abstract). This multi-sensory approach will allow children to build a solid understanding of each mathematical concept.
    - *Concrete*: Using manipulatives like counters, number lines, and blocks to demonstrate mathematical ideas.
    - *Pictorial*: Drawing diagrams and using models such as bar models to help visualize mathematical problems.
    - *Abstract*: Using numbers and symbols to represent the abstract mathematical concepts.
- **Differentiation & Challenge**: In line with the Mastery Approach, all pupils will have access to the same high-quality learning, with appropriate differentiation to meet individual needs. Extension tasks will be provided for those who grasp concepts quickly, while additional support will be available for those who need further consolidation.
- **Fluency, Reasoning, and Problem Solving**: Each lesson will involve activities focused on developing fluency in key mathematical skills, reasoning about mathematical problems, and applying knowledge to problem-solving tasks. Pupils will regularly engage in discussions about their thinking and mathematical strategies.

**Assessment for Learning**

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- Teachers will use *formative assessment* strategies to gauge pupil understanding throughout each lesson. This includes questioning, observing pupils' work, and providing immediate feedback.
- Regular *summative assessments* will be used at key points throughout the year (at the end of each term) to evaluate pupils' overall progress.
- Pupils will be encouraged to *self-assess* their understanding, developing an awareness of their own learning process.