Our Maths Curriculum at Preston

RATIONALE:

We have chosen to implement the White Rose Maths scheme following the trialling of Herts for Learning (HfL) Essential Maths. At the time, we recognised the need to develop the mastery approach to Maths, in particular the use of mathematical language, effective questioning and the importance of using manipulatives, all of which HfL helped us to improve. As we are now moving into our second year of embedding the mastery approach, we believe that White Rose addresses the needs of our mixed age classes with a clear starting point for our children in Reception. White Rose also supports the notion that Maths is not confined to a Maths lesson on the timetable but is regarded as a subject with many cross curricular opportunities.

INTENT:

At Preston Primary School, we believe mathematics is an important part of children's development throughout school from Reception to Year 6. We intend on delivering a curriculum through:

- An understanding of the important concepts and an ability to make connections within mathematics.
- A broad range of skills in using and applying mathematics through the mastery approach.
- Fluent knowledge and recall of number facts and the number system.
- The ability to show initiative in solving problems in a wide range of contexts, including the new or unusual.
- The ability to think independently and to persevere when faced with challenges, showing a confidence of success in a rich and meaningful way.

• The ability to embrace the value of learning from mistakes and false starts.

• The ability to reason, generalise and make sense of solutions.

• Fluency in performing written and mental calculations and mathematical techniques.

• A wide range of mathematical vocabulary and language.

• A commitment to and passion for the subject.

IMPLEMENTATION:

Our mastery approach to the curriculum is designed to develop children's knowledge and understanding of mathematical concepts from the Early Years through to the end of Year 6.

- In school, we follow the national curriculum and use White Rose Schemes of Work as a guide to support teachers with their planning and assessment.
- Use the big five ideas of Teaching for Mastery: Coherence, Representation & Structure, Mathematical Thinking, Variation and Fluency.
- Children understand the relevance of what they are learning in relation to real world concepts.
- Effective use of Learning Walls.
- Effective use of questioning.
- Use a range of manipulatives to support learning in a concrete way.
- Develop the Growth Mindset to persevere with challenges and a positive mental attitude to Maths in general.

- Opportunities to involve children in thinking mathematically, developing conceptual understanding and communicating mathematical ideas.
- Use representations to expose underlying structures.
- Challenge pupils through depth of reasoning.
- Apply Mathematical knowledge to Science and other subjects.
- Pupils should be encouraged to make rich connections across mathematical ideas.

IMPACT:

- Quick recall of facts and procedures through regular Fluency sessions.
- The flexibility and fluidity to move between different contexts and representations of Mathematics.
- The ability to recognise relationships and make connections in mathematics.
- Children show a high level of pride in the presentation and understanding of their learning.
- A Mathematical concept or skill has been *mastered* when a child can show it in multiple ways, using the mathematical language to explain their ideas, and can independently apply the concept to new problems in unfamiliar situations.