Mathematics Intent, Implementation and Impact

Intent

Through a mastery approach, we aim to deliver a curriculum that addresses the three main aims of the National Curriculum: fluency, reasoning and problem solving, which in turn will produce numerate children who have a repertoire of computational skills and the inclination and ability to solve mathematical problems in a variety of contexts.

Each child should have the opportunity to:

- become fluent in the fundamentals of mathematics
- develop thinking, logical reasoning, concentration and analytical skills.
- use and apply their knowledge, skills and understanding of Mathematics from pre-school through to Year 4 and beyond.
- develop clear communication and the ability to express ideas unambiguously and precisely.
- develop resilience so they can problem solve, reason and reflect.

Implementation

We believe that children learn best in mathematics through:

- depth not breadth, exploring each topic deeply before moving on
- concepts being modelled using the CPA (concrete, pictorial, abstract) approach, regardless of age
- having a clear learning objective (small step); explained at an appropriate stage in the lesson
- frequent opportunities to talk about their learning, with each other and with adults, using correct vocabulary, modelled using stem sentences
- opportunities to rehearse, use and play with their knowledge in a wide variety of situations, both real and simulated, across the curriculum
- multi-sensory experiences, through exposure to a variety of stimuli and activities including computing, movement, art, music, rhythm and rhyme, construction, modelling, role play and story.

The balance of written and practical work will vary but a key aspect of the mastery approach is the use of discussion and talk partners. All teachers currently follow the LC2 Calculation Policy to ensure consistency throughout the school, however this is under review (September 2023).

We use the White Rose Maths Scheme of Learning to provide a framework to meet the statutory needs of the National Curriculum 2014, delivered using the key principles of teaching for mastery.

Each small step is explored in depth before moving on, aiding retention and developing strong foundations that can be built upon in subsequent lessons. Mathematics is sufficiently deep and rich that all students can be challenged without straying from the learning objective. The challenge comes from investigating it in new, alternative and more complex ways.

Impact

As a result of our maths teaching at Pulford you will see pupils who:

- enjoy Maths lessons and know that their contribution is valued by teachers and peers.
- are confident and secure in their Mathematical knowledge and can talk about maths and the links between mathematical topics.
- for the majority, reach end of year expectations
- are aware of how much more they could learn, have confidence in their ability to learn it and an eagerness to do so.
- experience satisfaction as they master skills and develop understanding, appreciating the power this gives them.