

Vision:

We believe that in providing a high-quality mathematics education children can develop the ability to reason mathematically, develop real understanding and gain a sense of enjoyment and curiosity about the subject. We follow the Math's Mastery approach to Mathematics.

Aims and Intent:

For all pupils to develop:

- A belief that they can achieve
- An understanding of the importance of mathematical skills in everyday life.
- A secure understanding of the important concepts and an ability to make connections within mathematics.
- A fluent knowledge and recall of number facts and the number system.
- The ability to think independently and to persevere when faced with challenges.
- The ability to embrace the value of learning from mistakes.
- The ability to reason, generalise and make sense of solutions.
- A wide range of mathematical vocabulary.
- Fluency in performing written and mental calculations and mathematical techniques.
- The ability to use and apply mathematics across the math's and wider curriculum.

Principles of learning:

Every child can be a mathematician.

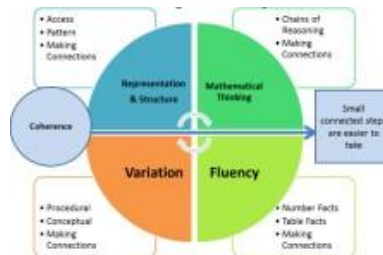
The ability to succeed is not fixed and this is clear in both lesson design and class teaching.

A Concrete, Pictorial and Abstract (CPA) approach enables children to see the math's to understand it.

Depth of understanding before breadth.

Use of pre and post teaching to enable pupils to consolidate understanding and close the gap.

High expectations for all learners to succeed.



Planning:

LTP's plot the sequence of learning throughout the year. - Priorities for learning (from the Mathematics Guidance document) are identified for each term.

MTP's identify the sequence of learning for each unit of work: - picking out the small cohesive step. - identifying and planning for misconceptions. - identifying key mathematical vocabulary. - planning in specific representations and structures.

Daily lessons: - build on from what has previously been taught. - Focus on one small step. - identify the key questions to develop understanding.

What learning looks like:

- Teaching whole class together enables all children to access the learning.
- Children are not ability grouped as continuous AfL is used to identify strengths and need for support.
- Small focus of learning for the lesson builds on prior learning.
- Learning starts with a problem to contextualise the math's and to give it a purpose.
- Precise and accurate mathematical language is used by both adults and pupils.
- Questions are planned to challenge thinking and to develop understanding.
- Children are encouraged to answer in full sentences to explain their thinking.
- STEM sentence are used to support learning and expose connections.
- Choral and rehearsing of key points help pupils to internalise learning.
- Discussion plays a key part within lessons as pupils are given time to put into words their thinking to develop their reasoning.
- Concrete – Pictorial – Abstract (CPA) representations are planned in carefully to ensure children can 'see' and therefore understand the math's rather than just following a procedure.
- A ping pong style lesson style allows knowledge to be developed under close support.
- 'I do', 'We do', 'You do' approach is used to model and scaffold the learning.
- Common misconceptions are addressed and planned for to draw attention to the key learning.
- Conceptual variation ensure children can transfer a skills from one context to another.
- Procedural variation encourages children to look for connections in their learning.
- Children are actively encouraged to seek for patterns and share what they notice within their learning.
- Independent learning enables children to apply their new skills and knowledge
- Children who understand the learning are encouraged to look deeper within concept with planned questions and investigations.
- Children requiring support are kept with the teacher or TA for further guided practice.
- Differentiation will mainly be through the level of adult support each child receives. Generally, children will not be given different activities to complete.
- Children self-mark so that they can identify errors and self-correct or seek support within the lesson to avoid misconceptions being reinforced.
- 'The answer is only the beginning'; is used to encourage children to prove and explain their thinking.

