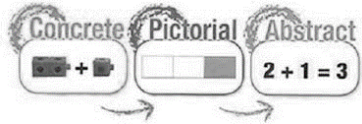




Maths Mastery



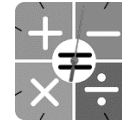
Children learn about mathematical concepts in depth. They work through concrete, pictorial and abstract stages of learning. By using practical equipment, the children begin to create pictures in their mind which they will be able to use and draw upon this 'hands on' learning in the future. The children then begin to draw pictorial representations of a problem to help find a solution. The final stage is to record their problem as an abstract number sentence. Children are deemed to have mastered a concept if they are able to confidently retain and apply in a range of contexts.

Sequencing



Units of work are sequenced so mathematical knowledge is cumulative. Areas of maths are interleaved so that they are regularly revisited and knowledge is built upon. Mental maths strategies are planned and taught sequentially year on year as are the methods and resources available to the children.

Fluency



Opportunities for independent practice and overlearning are provided to ensure automaticity with fluency sessions. Deliberate practice affords the children the time to consolidate their understanding of methods. Technology encourages children to regularly practise fundamental number work. Intervention takes place for those children who have been identified via PUMA assessments as falling behind. Opportunities for independent practice and overlearning are provided to ensure automaticity with daily extra fluency sessions. Deliberate practice affords the children the time to consolidate their understanding of methods.

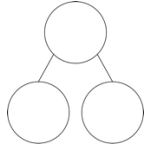
Retrieval practice



Children engage in regular fluency sessions to help them develop and strengthen retrieval and memory. Assessments require retrieval and demonstration of understanding. Technology encourages children to regularly practise fundamental number work e.g. TT Rockstars, Numbots and Minute Maths. .



Modelling

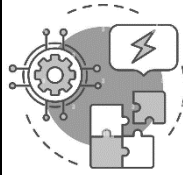


Mathematical instruction is chunked into small manageable steps to avoid cognitive overload. Direct instruction is clear and often exemplified with images and songs to lessen the risk of overload.

Children work initially with the teacher using Maths journals and then through independent practice.

Guided practice through these small steps allow the children time to rephrase, elaborate and summarise new material.

Non-examples are shared to limit the possibility of errors being made.



Reasoning & Problem Solving

Reasoning is present throughout. To make them stand out, reasoning exercises and challenges are printed on coloured paper.

Children can complete these in their math journals, books, or folders.

The teacher can assess the students' comprehension by asking insightful questions that make them reflect more thoroughly on the task.

The teacher serves as a role model to aid in the acquisition of mathematical language and its appropriate application, and the children's responses support their oracy journey.

Making Progress



At the end of each unit, students' knowledge and retention of what they have learned offer an indicator of their progress.

Both the complexity of the tasks and the content they are learning present adequate challenges to the children.

Termly assessments highlight children's understanding and identify any gaps.

Support for all



Scaffolding and differentiation provides children the foundations they need to achieve and build confidence with numbers and the number system.

A variety of manipulatives are utilised to ensure there is support for all children in their education.

Every day, interventions are employed with a "keep up, catch up" format to enable all students to succeed.

Manipulatives and models are used initially in all classrooms to provide a firsthand experience allowing the children to construct physical models of abstract mathematical ideas.