

Mastery in Mathematics

Our approach to teaching Mathematics at Little Green Junior School

What our school is doing to move towards a mastery approach: Using the core content from the Programmes of Study, we aim to provide children with deeper knowledge and understanding of mathematical procedures and related concepts. As such the school has identified the key learning for each year group/age range and supports teachers to plan to secure these. Learning sequences are developmental and, depending on the concept, a good proportion of time will be spent securing key learning. Teachers will use their judgement about when it is the right time to move on. As we secure this approach, it is envisaged that the large majority of pupils will progress through the curriculum content at broadly the same pace.

What a visitor might typically see in maths learning in our school

- Whole class direct teaching with clear and progressive modelling of concepts and procedures with sequences of varied examples
- The consistent use of core manipulatives and representations to support ability to access learning and to deepen children's understanding
- Rehearsal of core facts and strategies through the development of frequent 'intelligent rehearsal' (Fluency)
- Rich mathematical talk is given high status and supported by the learning environment and teachers' questioning
- Emphasis placed on 'learning' through reasoning, developing multiple strategies and concepts towards understanding
- Pupils 'grappling' with learning mathematical concepts
- Challenge for pupils grasping concepts quickly is provided through depth and breadth of experience
- A few areas of learning covered more deeply in a half term
- Frequent opportunities to reason and problem solve
- Differentiation is achieved through adjustments to allow access to whole class learning or increase in challenge through adjustment for depth and breadth to whole class learning.

How the school intervenes swiftly to help those having difficulty to make sure they keep up, and to stretch and deepen the learning of the 'rapid-graspers'

- Teachers are constantly assessing next steps and diagnosing misconceptions ready for future planning and teaching. Pupil groups are flexible within classes and based upon pupils' understanding of the current learning as teachers understand that pupils grasp areas of maths at different rates. So, for example, a pupil might find learning an aspect of number difficult but may require challenge in geometric learning.
- Teachers make manipulatives available to support and/or challenge conceptual understanding depending on the needs of the pupil
- TAs are well trained and as a result of their increased subject knowledge are able to support groups effectively

- The school invests in early intervention for mathematics. These will be short-term and sharply focussed upon specific needs. Leaders will regularly assesses the impact of these as part of the school monitoring cycle.
- Staff understand that stretch and challenge are achieved through increasing opportunities for pupils to work deeply and broadly within each area of mathematics.

How the school has developed its systems for tracking attainment and progress

The school is focussed on formative assessment first and foremost and uses HfL assessment criteria to judge how well individuals and groups of individuals are securing learning and to identify gaps and barriers. This allows the swift identification of groups of pupils in danger of not meeting age-related expectations or for whom progress has slowed, as well as identifying those who are securely grasping age related expectations so that appropriate challenge is provided for these pupils to broaden and deepen their understanding.