



The Maths Mastery Approach at Loughton, Y3:-

Aims of the Y3 mastery curriculum

Using findings from 'What Makes Teaching Great?' (Sutton Trust, October 2014) , 'Making Best Use of Teaching Assistants: Guidance Report' (Education Endowment Foundation, March 2015) and training in Shanghai Maths Approach (Enigma MathsHUB, 2014-15), in addition to the National Curriculum, September 2014.

- To create deeper understanding in mathematics, rather than accelerate pupils into ever new content
- To cater for different levels of attainment within mixed ability classes
- To focus on depth of learning

This is being achieved through:-

- Concrete and visual resources are used to model concepts, leading eventually to more abstract application of concepts
- Detailed and well thought through lesson planning
- Y3 team meeting to discuss planning and check pedagogical understanding weekly
- Learning in small steps; building blocks of learning that may initially seem slower in terms of progress but have been proved to get children further
- Rapid graspers tackle more challenging questions and problems, explaining their reasoning more deeply, in full sentences
- Regular intervention for those finding concepts most difficult ensures they keep up with the rest of the class
- Children explaining their reasoning using accurate mathematical vocabulary in full sentences: 'I know I am right because...'
- Teaching conceptual variation
- Children doing 'intelligent practice' (procedural variation)
- Newly produced textbooks endorsed by MathsHUB and NCETM purchased as a resource for teachers

The maths coordinator and the year 3 manager have been working closely with the MathsHub and another local school, Two Mile Ash, in a working group studying the approach to maths teaching in Shanghai, a high performing country.(85% of their children go on to study maths at a high level as opposed to 15% here). That said we cannot take on the whole approach because we are not the same. We have a very different culture and in China all children are taught by Mathematics specialist who

might only teach 8-10 lessons per week, using the rest of the week to plan, mark and deliver intervention. Regular lesson study with colleagues plays a significant role in CPD in China.

We have been investing in high quality training over the last 2 years to further improve teachers' subject knowledge and knowledge about how to teach and assess mathematics. (See Maths Action Plan)

Following staff meetings briefing teachers and TAs on the mastery approach, elements of the mastery approach are being adopted across the rest of the school where we are still currently teaching in sets. (Use of Shanghai style textbooks in a Y4 class, regular intervention for children to catch up and keep up in Set 4 in Year 4 and 5, and set 5 in Y5).

The year 3 progress, attainment and attitude to learning is being evaluated throughout the year with a view to deciding whether to roll it into year 4 next year. The decision will be made in the summer term. Current findings are very positive from teachers, teaching assistants, pupils and parents.

Parents meetings and booklets have kept the parents well informed about how we are teaching mathematics.

We are assessing using the new national curriculum Age Related Expectations (ARE). We use formative assessment throughout the year and together with a written test at the end of the year (new NFER tests based on the new ARE) report a summative assessment to parents (emerging, meeting, deepening against ARE). Children's progress throughout the year is monitored through tracking sheets, scrutinising work books, learning walks, lesson observations, discussions with children and pupil progress meetings with teachers. We use the NCETM (National Centre for Excellence in Teaching Mathematics) assessment materials to model tasks for formative assessment purposes.

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