

Teaching for Mastery Lesson Design at Kensington Junior School A Primary Case Study



Teaching for Mastery Lesson Design Work Group

One of the biggest challenges facing schools as they adopt a teaching for mastery approach is how to design lessons. Working collaboratively with practitioners from across the East Midlands the project, we began by identifying the key features of mastery, before exploring a route through a lesson, that allowed teachers to link these together in a coherent manner. Essentially we were looking at how to turn theory into outstanding classroom practice. Though our research often went much wider what is captured here in these case studies, each participant school was asked to focus in on one aspect of lesson design, how it has been incorporated into classroom practice, and the impact it has had on learners.

Overview

Laura Sheldon is Year 6 teacher and Maths Lead at Kensington Junior School in Ilkeston, Derbyshire. Laura took part in Mastery Lesson Design programme throughout 2017/2018. The programme has allowed her to lead and develop the implementation of Mastery teaching in Mathematics across the school. It showed her how to design lessons using Fluency, Reasoning and Problem Solving to support the needs of all learners. She explained "I now feel more confident in my role of supporting colleagues in teaching using this approach."

What we did at Kensington Junior School

Focus: Anchor Tasks and Plenaries

Before this programme, most Maths lessons started with an Oral/Mental starter. This was often quick-fire times tables, or practising 'basic' skills such as number bonds. During the course, we looked at using an 'Anchor' Task to begin a lesson. Knowing that the children's reasoning skills needed to be developed across the school, it immediately seemed like a useful first step in our new design of Mastery lesson planning. The Anchor Task; usually a combined mix of a problem, along with reasoning (discuss/ explain/ persuade me that etc.) element, allowed me to quickly gauge the children's starting point. Here is an example of one of the Anchor Tasks I've used:

Joseph completes an Arithmetic test each Monday morning. Here are his scores from the last ten weeks:

12	
25	
16	James says "Joseph's mean score must be 22 as he scored this twice".
19	
22	Is James correct?
20	
22	Do we need to know how many marks the test is out of?
13	
17	
24	

Misconceptions were also addressed promptly as a result of listening in to the children's discussions throughout the first two minutes of a lesson. As a result of the discussions about the task, the children were grouped according to their level of understanding. Some continued with fluency practise and some with secure fluency moved to problem solving. Reasoning questions are asked by the teacher throughout the lesson, to children of all abilities. We are continually developing the children's understanding of the three curriculum strands; Fluency, Reasoning and Problem Solving and would like the children to

eventually become more able to create their own purposeful problems and reasoning investigations for peers to solve. I shared my planning, and several of the Anchor Tasks that I created as part of Inset day training on Mastering Maths. The first part was delivered by a local authority advisor; then I followed with my planning and a whole school sharing of ideas discussion.

Prior to this course, I struggled to make effective use of plenary time within a Maths lesson, often running out of time before Lunch or not knowing what which would be the most useful; a 'roundup' or forward planning for the next day. During the course, we discussed the concept of a 'Golden Ticket'. My understanding of this is a question that should now be able to be solved if a child is fluent and can reason and problem solve around the Learning Objective. At the end of each lesson, a Golden Ticket is shown. Those that answer successfully are seen as Mastering the Learning Objective and those that cannot are noted for further support, either in afternoon intervention time or to be targeted the next day. The children understand the Golden Ticket as an amalgamation of the skills that they have been learning during the lesson and can celebrate their understanding at the end of a lesson through successful completion of the task or question.

Summary and next steps

Moving forward, I hope to continue to develop both mine and colleagues' practice using a Mastery Lesson Design. I believe that the children should have an understanding of what the three strands of Maths mean and appreciate that all are needed to become a successful learner and user of Mathematics. We are working with the children to develop their abilities to explain their Mathematical thinking in a coherent and fluent manner and making use of reasoning starters and plenaries is our first step in securing this.

More Information

For more information about this project, or other workgroups and opportunities available through the East Midlands West Maths Hub:

Visit our website: <http://www.emwest.co.uk>

Follow us on Twitter: EM_MathsHub

Email: mathshub@george-spencer.notts.sch.uk