Teaching for Mastery Lesson Design at CHAUCER JUNIOR SCHOOL

A Primary Case Study

MathsHUBS East Midlands West

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

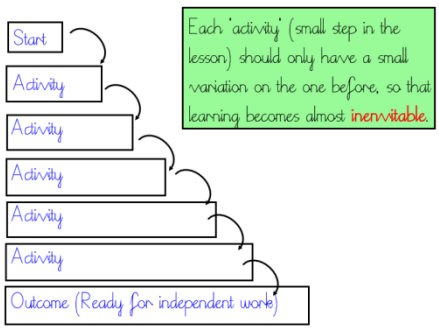
Chaucer Junior School is a two-form entry school with approx. 230 on roll. Last year, myself (the Maths lead) and a Y3 teacher had taken part in the 'Teaching for Mastery' Research Group with Tom Isherwood, which meant we had two teachers with a solid grasp of delivering Maths in a mastery way. At the end of last year it was beginning to be rolled out to other year groups, excluding Y6, but was very much in the embryonic stages. We decided to take part in the 'lesson design' work group so as to get ideas on how to develop our staff's understanding of designing and delivering effective maths mastery lessons. Certain elements were already embedded, such as the use of concrete and visual apparatus as well as the idea of including reasoning and problem solving as challenges, rather than moving certain children on ahead.

What we did at Chaucer Junior School

At the start of this year, there were two main areas I wanted to address after completing a round of observations of maths lessons across the school:

- Supporting teachers in designing lessons that used anchor tasks and small steps in a way that learning was almost 'inevitable.'
- Providing a way to offer challenge and depth to rapid graspers **within the small steps of the lesson**

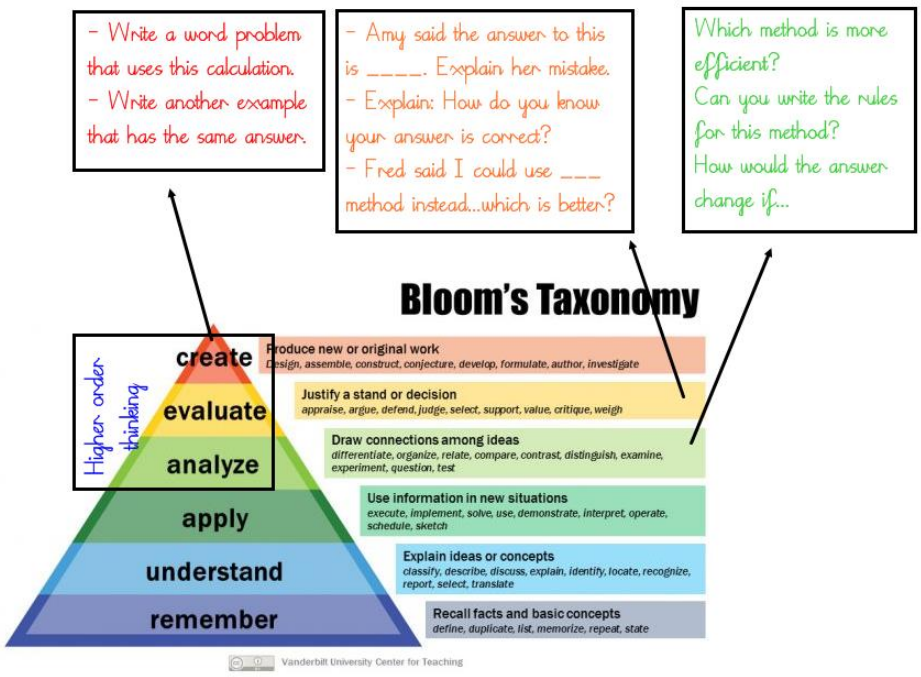
Attending the work group had given me ideas on different ways to present the key concepts to my colleagues and offer ideas and support to design and deliver more effective lessons. Initially there had been misconceptions about what the anchor task is to be used for and how a lesson evolves from that start point. After discussions at the work group I took ideas away and ran a couple of staff meetings. One of the visuals I showed to reiterate the idea of small steps is to the left.



After more discussions about the key principles of mastery, with a focus on variance and importance of making the steps small enough, we looked at example lessons that I had taught so far and had a lot of success with, unpicking the small steps. Staff went away with a clearer understanding of how a mastery lesson should look.

I also worked with a couple of colleagues in a peer planning/teaching capacity to help them see and unpick mastery lessons first hand with their own classes, as I believe understanding mastery can be very difficult without actually seeing it in practice. Some colleagues were also released to go and observe lessons within other school settings too.

Another staff meeting covered ways to offer greater depth to rapid graspers within each of the small steps so that they were still being pushed, whilst those who weren't ready to move on could have more time on the main step currently being looked at. The idea of 'depth' and 'greater understanding' was discussed following an idea seen in the work group, and then I linked it to Bloom's Taxonomy, shown in the diagram.



My intention was to give teachers a clearer idea of ways in which they could offer quick deepening activities to rapid graspers within individual steps. We didn't want to go back to having separate groups for the 'quicker' children, nor did we want to have a completely separate, more challenging question that would also have to be discussed as this would slow down the pace of the lesson, possibly leading to 'losing' engagement of some children.

Teachers went away with ideas of what they were now going to try to do. We decided on having a 'yellow box' on each step - where appropriate - that would offer an extra quick task linked with the slide which promoted higher order thinking, encouraging more consistent use of reasoning and problem solving skills all throughout maths lessons.

Summary and Next steps

Recent lesson observations showed a huge improvement in the mastery delivery across Y3-Y5. Lesson structures were more consistent across the school and were more carefully catered towards the mastery style of teaching and learning. A considerable improvement in the quality of questioning and discussion was noted, with a high level of mathematical vocabulary being used by the children. Children of all abilities were more articulate about their learning, and all children were engaged and keeping pace with the lesson.

It was also noted that deepening challenges were being offered more readily (at suitable times) in the 'yellow box' so that rapid graspers were being stretched. This was done in a quick way that didn't affect the pace of the lesson and also meant that all children were being exposed to it, even if they didn't quite get on to having a go at it themselves.

Next, (amongst numerous other things!) I would like to get staff to think more about how they refer back to the problem that is within their step so that children become more confident and articulate about the problems/contexts, (i.e. which bit means what in terms of the problem): '14 means 14 people were on the bus' and '- 8 mean 8 got off.'

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