



Teaching Mastery in Secondary

What we are trying to do

Embed the principles of Mastery Teaching in KS3 Mathematics

The story so far

Part 1 – Shanghai Visit - September 2015

Jayne Webster (MKA) and Aaron Philips (CCS) visited Shanghai to witness first hand how Shanghai lessons were planned and delivered in outstanding, high performing schools across the city.

Part 2 – Shanghai teachers in England - November 2015

The program included an introduction to Shanghai teaching and Mastery, followed by observation of a lesson (40 mins). Lunch and discussion were followed by observation of the follow-up lesson (40 mins). Each session ended with a Teacher Research Group (TRG) style discussion and Q&A. All participants have access to CPD material available on Dropbox and YouTube with guidance on how to use it in schools. This program was delivered by 4 open house days at MKA, 1 day at CCS and 1 day at Denbigh and 2 afternoons at four local primary schools.

https://www.dropbox.com/sh/n4awy5htvbtslpd/AACHUrE6zv1YCUpsQsIN7Ee_a?dl=0

https://www.youtube.com/playlist?list=PLc-Yti0Fks-HahZegJb_PJTHKssk-KBtl

Part 3 - Our Schools - Autumn and Spring Term

Embedding Mastery in our Mathematics Curriculum

Within MKA:

- fully rejigged SoW for Years 7 and 8 to embrace a mastery-style topic order;
- dedicated weekly TRG (Teacher Research Group) sessions that serendipitously fall within common non-contact periods amongst the team;
- fully embraced mastery-style lessons in Year 7 and 8, planned initially by VP but now responsibility shared amongst the team;
- careful attempts to ensure lessons are planned such that they address



misconceptions from the outset, and embrace the key principles of Shanghai-style teaching (eg. variation, concept/non-concept);

- mixed-ability teaching throughout KS3.

Within CCS:

- reworked SoW for Year 7 and transitional SoW in Year 8;
- weekly TRG for select staff;
- mastery-style lessons delivered in Year 7;
- ongoing CPD delivered by AP and KS3 coordinator relating to mastery-style teaching.

Part 4 - Embedding Mastery in local schools

- Many schools have made varying attempts to embed and utilise the ideas and strategies they have learnt about through the Open House days and their wider research.
- MK HoDs have now met twice to discuss Mastery and ways to embed it at KS3. In the latest meeting they compared Shanghai Style Percentages to MK percentages and decided on a common approach to delivering percentages using elements of Mastery.

<https://www.dropbox.com/s/png1siy11vkbb0j/Percentages%20Shanghai%20Style%20%281%29.docx?dl=0>

Participants

All Maths staff at Milton Keynes Academy, CCS and Denbigh Enigma Hub Heads of Maths and 30 teachers from Milton Keynes, Northampton, Bedford, Oxfordshire and Buckingham:

Amy Hodson – John Colet – Aylesbury, Bruno Reddy – KSA – London, Nigel Cross – SBE – MK, Mark Adam – TKS – Witney, Jackie Normanton – Walton High – MK, Natalie Smith – CTS – Northampton, Glen Elliot – John Colet – Aylesbury, Eileen McLoughlin – Denbigh – MK, Rhiannon Fennel – SBE – MK, Anjali Dayton – Wavendon Gate Primary – MK, Gail Johnstone – Biddenham School – Bedford, Tony Edwards – Samuel Whitbread – Bedford, Bijal Joshi – Sir



Christopher Hatton Academy – Wellingborough, Ian Bacon – Denbigh- MK, Ailsa Edwards – Denbigh – MK, Kirsty Ashton – CCS – Northampton, Charlotte Ellson – Denbigh – MK, Peter Dispaine – Stantonbury – MK, Bella Patel – CCS – Northampton, Steph Duguid- Lord Grey – MK, Rob Tait – NCETM, Gareth McCluskey – SBE –MK, Stephanie Wilkie – Silverstone UTC, Sandra Neto, Saartjie Halgree – TKS – Witney, Rebecca Clark – Oakgrove – MK, Rebecca Fitzpatrick – Marsh Gibbon – Primary, Gareth Ownes - Marsh Gibbon – Primary, Vicki Andrews – Lord Grey - MK

Progress so far

- Many staff expressed feeling rejuvenated by a different approach to delivering lessons and shaking up their Key Stage 3 approach.
- Change of approach to SoW progression means that staff can take time to ensure understanding, fluency and mastery are developed, as opposed to racing through a set of objectives to stay in line with a breakneck SoW.
- Students are enjoying lessons
- The most able learners are gaining a deeper understandings of previously studied topics and are enjoying the challenging of deepening rather than accelerating.
- Working really well for mixed ability classes.

Next steps

Within MKA/CCS:

- Continue to refine SoWs for Year 7 and Year 8, and consider whether we are extending this into Year 9 or whether “GCSE-style” teaching begins here (are the two things mutually exclusive?);
- Evaluate the impact of mastery-style teaching and establish how this can be further improved;
- Continue to share planning and resources, and eventually develop ‘Chinese Takeaway’ packs of lesson plans and resources that can be downloaded and deployed fairly effortlessly;



- Work closely with timetabler for 2016-17 to plan for TRG/planning time to be built into the timetable wherever possible;
- Consider possibility of staff teaching fewer year groups, eg. teaching both parallel groups on each year-half

Within the hub:

- Work closely with individuals in five identified local schools to create an extended TRG, who meet to share resources and planning on a series of lessons on particular topics; 1st March proposed
- Trial a hub-wide TRG, inviting representatives from each school to a central location to discuss pedagogy and mathematics relating to a series of lessons on particular topics. Summer Term