

# EAST MIDLANDS EAST MATHS HUB

NEWSLETTER - DECEMBER 2019



## Introduction

Welcome to our Christmas Newsletter. We hope that you have all had a successful start to the academic year and are looking forward to a restful break with friends and family over the holidays.

This year we welcome two new members to the Maths Hub core team:



**Georgie Goldstein**  
Maths Teacher  
& Assistant Maths  
Hub Lead



**Nicola Walker**  
Maths Hub  
Administrative  
Assistant

We are delighted they are able to join us and wish them success in their new roles.



From January to December 2020 Sarah Charlton will be working with us as the Placed-based Assistant Maths Hub Lead for Lincolnshire with a special focus on South Holland, South Kesteven and West Lindsey. This role has been created following the success of the model in 'Northern Powerhouse' Hubs and the DfE has decided to extend the model to other hubs.

## China-England Exchange

This term three colleagues from across the Hub region visited Shanghai as part of the ongoing China-England Mathematics Exchange Programme. In this newsletter we focus on their individual reflections from the visit. There will be opportunities for colleagues to see Shanghai teaching in action when the Shanghai teachers visit us during the return leg in March.

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If you are interested in finding out more about the Shanghai Showcase Lessons then please email us at

[enquiries@ememathshub.org](mailto:enquiries@ememathshub.org)

or click the button below to reserve your place.

**BOOK HERE**



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## Reflections from the Primary China-England Exchange

**Liam Bielby - Primary Teaching for Mastery Lead, Bardney Church of England and Methodist Primary School**

I feel extraordinarily grateful to have had the opportunity to visit Shanghai as part of the China-England Mathematics Teacher Exchange. The whole experience, from the moment we landed, was fascinating and I am sure it will remain the greatest piece of professional development I experience in my career.

We were extremely lucky to be able to spend time in two schools and observe some truly amazing lessons taught by some of the best teachers in Shanghai. What I really noticed through speaking to the teachers and observing the daily routine of children and staff is that there is a very clear vision towards every child's mathematical learning. Every child we spoke to during our trip was positive about learning maths and enjoyed being able to unpick the rules and laws and really explore the beauty of the mathematics.

We observed many extremely well-crafted lessons which supported this ethos and really challenged students (and our!) thinking. The 35-minute lessons were perfectly coherent with lots of small steps to scaffold students' understanding and contained variation to encourage and deepen their knowledge and allow them to make connections.

From a very early age, it is obvious that all children are exposed to a high level of mathematical vocabulary and dialogue and are encouraged to use it in their reasoning. This is alongside truly exceptional calculation skills and number fluency, which come from deep practice and procedural variation that is revised and revisited constantly.

Another key finding from our visit, which I knew happened a lot in Asian education systems but didn't quite appreciate how much until we visited Shanghai, was the amount of collaborative research and lesson design that takes place. Teachers work together almost constantly to refine and craft their lessons, and it is not unusual to have the same number of adults sat at the back of a classroom observing the learning as there are children in the lesson! This collaborative practice and the feedback that is given to the teacher during the TRG (Teacher Research Group) at the end of the lesson is invaluable in promoting constant improvement.

We were fortunate to be a part of the TRGs after every lesson we observed to provide our feedback and make comparisons to our own practice; as well as receiving feedback on lessons we taught to classes of (impeccably behaved!) Shanghai children.

Our Shanghai partner teachers, Ms Qian and Mr Xu delivered some truly outstanding lessons during our time in China and we are so looking forward to hosting them in March. From what we have seen in Shanghai, the showcase lessons at Bardney Primary School promise to be unmissable.

**Jenny Flavell - Primary Teaching for Mastery Lead, Heath Primary School**

Visiting Shanghai has been the greatest honour and privilege of my career so far. Before departing, I knew that I would learn such a lot and come back with fantastic ideas, however, I couldn't possibly have envisaged the extent of how I would develop both, professionally and personally.

There are many misconceptions around the Chinese Education system; I expected to find perfectly-behaved children, sitting in rows and chanting times tables. This was not the case at all.

Liam and I spent two weeks in two different schools where we observed an abundance of excellent maths lessons. Each was carefully crafted, allowing students to realise the key points of learning for themselves. The teachers took the children through the lessons in small, coherent steps and kept the children moving together through their learning as a class. The lessons were focused and cleverly designed; the children had a deep understanding of mathematics, even in the Grade 1 classes and, as a result, could explain the parts of addition and subtraction calculations using correct mathematical vocabulary such as; addend, sum and minuend.

Children were provided with opportunities to discuss their learning with others and to discover new learning for themselves. The lessons were simple and focused, but the learning was incredible. I was blown away by the calculation skills of such young children and their ability to apply their knowledge to solve real-life problems.



## Reflections from the Primary China-England Exchange (cont'd)

What really struck me, however, was the collaboration amongst the teachers. They worked together, in teacher research groups, to plan lessons with clear, focused key points. Discussions around potential misconceptions and how these would be addressed were a key part of the planning process, as well as detailing what would be on the board to support the children's learning. Teachers, within the school's own mathematics department as well as from other schools across the district observed lessons regularly and provided feedback during meetings after the lesson, each teacher acting as the 'critical friend' and helping to further improve the lesson. Time was invested in the creation and feedback around these lessons and the professional development of all of the teachers was valued. Lesson planning was an art within its own right and the teachers were specialists, with such deep subject knowledge.

I am eager to share all of the things I have learnt with staff in my own school and with schools that I work with in my Mastery Specialist role. It is an exciting time of change for mathematics teaching and I am both proud and humbled to be a part of it. We are also very much looking forward to welcoming our partner teachers, Miss Qian and Mr Xu to the East Midlands and hope that having the opportunity to see their teaching leaves others inspired, the way we were inspired in Shanghai.

## Reflections from the Secondary China-England Exchange

**Dan Poulson - Secondary Teaching for Mastery Specialist, Thomas Cowley High School**

In November I had the privilege of visiting Shanghai for two weeks to observe Teaching for Mastery in secondary and primary schools. I can honestly say it was one of the most incredible experiences of my teaching career so far.

It is hard to know where to begin as I was so overwhelmingly impressed by what I saw. Lessons are carefully crafted and there is a strong sense of collaborative planning within the maths departments. The curriculum has been so carefully designed and honed over a number of years and there isn't a bulk of content to try and wade through. Lessons are set out in small steps to ensure students are fully confident with the concept being covered.

To quote one of my Shanghai partner teachers "Our job in the 40-minute lesson is to make sure students understand the concept, the practice can be done at home". Students are given 30 minutes of maths homework every day which they all diligently submit the following day. The Shanghai students were incredibly fluent and confident in their maths lessons and could happily move from the concept being taught to producing algebraic generalisations.

The curriculum has been set by the government and this is followed explicitly, but rather than feeling tied down or restrained it felt liberating. I saw the same lesson taught by 3 different teachers and each was very different. Despite the curriculum being rigidly set and adhered to, individual teaching flair and style were in no way compromised.

What struck me is that it is not just the secondary school maths curriculum that is well sequenced but the whole of it right through from primary. It has made me realise that the transition from KS2 to KS3 still feels disjointed and I fully intend to reach out to my feeder primaries to build stronger links to better support our students.

Observation is a regular part of their teaching ethos. Most of the lessons I observed had numerous members of their own departments sitting in to also observe. The staff then met to discuss teaching approaches which was really refreshing. I also spent time in their Teacher Research Groups which take place every Wednesday afternoon with all 200 maths teachers from their district coming together to work together. I found this completely mind-blowing. I am resolved now to ensure the little departmental time I have is spent more productively, focused on the teaching of mathematics, rather than being distracted by the mundane day-to-day issues that could be resolved via email.

I look forward to hosting our two partner teachers Ms Shan Liu and Mr Hui Chao on their visit to the UK in March and am delighted to continue to build the relationships between our schools.

