

Welcome to the third edition of the...

# Boolean Maths Hub Bulletin

*As the new academic year begins, we also enter the second phase of the Maths Hubs Programme. This bulletin contains some of the successes from Phase 1 of the Boolean Maths Hub as well as information of upcoming events, courses and work groups. We are very excited about the secondary China-England exchange and developing the work begun with the primary schools on teaching for mastery.*

*If you are not yet on our mailing list or have any questions, please contact our hub administrator.*



## Summer School Success!

Year 11 students from across the hub region who are to study A-Level Mathematics from Sept 2015, have been given the opportunity to work with a collaboration of expert teachers of Mathematics in order to better prepare them for the start of the term. The summer school, which was free to students, took place over two days in the final week of the summer break.

Morning practice sessions consolidated students' learning including that of quadratics and surds whilst building confidence through introducing A-level notation and extending concepts such as sequences through to series.

After lunch the students worked on solving contextual problems based on the mathematics from the morning sessions.



During the final day, one participant, Beth, stated, 'This has been an amazing opportunity and I feel much more prepared and confident. The summer school should definitely continue.' Students also offered to promote the summer school during the next academic year for future participants.

The Boolean Maths Hub would like to thank the teachers and staff from St Brendan's Sixth Form College, St Bede's Catholic College, the Cabot Learning Federation and the White Horse Federation who were involved in the creation and implementation of this fantastic opportunity for students.

We plan to expand the summer school this coming year. For more information or to get involved please email [rhian.skinner@clf.cabot.ac.uk](mailto:rhian.skinner@clf.cabot.ac.uk) who will put you in contact with the work group lead, Sharon Porter.



## China-England Exchange: Secondary



Two maths teachers from the region are departing on a research trip to Shanghai on Sunday 6th September to discover for themselves how maths is taught there, and begin to explore ways in which elements of the Shanghai teaching approach might be introduced in secondary schools here in the South West.

The teachers, Mr Adam Williams from Bath Community Academy and Miss Mansukh Mann from Bristol Metropolitan Academy, are part of a group of more than 60 English secondary school maths teachers participating in an exchange as part of the Maths Hubs Programme research project.

This year's secondary exchange focuses on students in KS3, deepening their understanding of mathematics.

The party of teachers from English schools will be in Shanghai for two weeks, with the Shanghai teachers returning, to teach alongside their English colleagues, in November.

Mansukh reflects on her observations of the primary exchange from last year, "Having seen the Shanghai teachers teach at primary, their emphasis on conceptual understanding and how well our primaries have adapted and adopted the things they have learnt from phase 1 of the programme, I am thrilled to be a part of the second phase of this research project. This will give us an opportunity to objectively look at and exchange ideas with practitioners from one of world's best performing maths education systems and adapt what we see to cater for the needs of our students.

Whilst Adam contemplates the challenges ahead, "The trip to Shanghai is one that I anticipate with real excitement as it presents me with the rare opportunity to access the pedagogical practices of a completely different culture. As a Maths Teacher and as a Head Teacher I will have the chance to compare, contrast, hypothesise and learn through observation and participation, an alternative model of mathematical delivery as well as a whole-school system around which this is supported and facilitated. Notions such as 'mastery' and 'differentiation' will be closely considered and interrogated for excellence and application in the UK backdrop. I am certain that I will be challenged professionally and I relish the opportunity to grow my perspective and to influence the leaders, teachers and children in the UK upon my return, in the days that follow."

For further information about the Boolean Maths Hub please contact [rhian.skinner@clf.cabot.ac.uk](mailto:rhian.skinner@clf.cabot.ac.uk).

## Post ITT Subject Knowledge Enhancement Course - Secondary

A second cohort of SKE+ started at the end of last term with a taster session/launch event but there is still time to join. This **FREE** course supports and empowers participants in **improving the quality of their teaching** through both content and pedagogical knowledge.

*"A timely course which was well led and has provided the impetus to develop my teaching practice."* - Cohort 1 Participant

If you or someone you know is suitable and interested in taking part please contact the Boolean Maths Hub Administrator for more information and/or reserve a space on this cohort.

### CPD through using Video

Alf Coles

The Boolean Maths Hub is currently supporting a project run by Alf Coles at the University of Bristol, to establish a "video club" in Bristol for teachers of mathematics. The club works by inviting up to 10 teachers to meet on 6 occasions (typically once a fortnight) to share short video clips of their teaching. A particular way of working on video is used, which begins with a focus on the detail of events before moving to an interpretation or analysis. The first club met in the summer of 2015 with a group of teachers.

Some of their reflections on the club are below:

"I valued the non-judgmental analysis"

"I think it's shown me the importance of ... collaborative unpicking. It would be nice just to have a staff meeting where you did that and I don't think that maybe is done enough, so it's nice to have that time to do it. And it didn't feel like it was a laborious task, it felt like 'Oh, I'm on my way to go to the video club'."

"Every minute is purposeful and worthwhile".



A web-site is in the process of construction, to support others wanting to run video clubs, or use video effectively in their schools.

A second round of the club will be meeting over the course of the Autumn Term (first meeting Wed 30th Sept). The club is free to attend and meets after school.

If you would like to be involved, please contact Alf.Coles@bris.ac.uk, or the Boolean Maths Hub, for more information and an application form.

### New NCETM primary mastery assessment materials

The NCETM's new online materials to help primary teachers judge whether pupils have developed mastery of the maths curriculum have been downloaded more than 45 000 times in little more than a month.

The materials have been written by a group of primary mathematics experts and primary teachers working through the Maths Hubs programme, and are divided into six sections, one for each of Years 1 to 6 inclusive, and mapped against key topics of the National Curriculum.

Each document contains two categories of mathematical questions, tasks and activities: one designed to help assess mastery of a concept, to which all pupils should aspire, and one to assess mastery with greater depth.

Debbie Morgan, the NCETM's Director for Primary said: 'We're delighted that the materials have proved so popular. We hope they will be part of every primary teacher's toolkit giving them reliable help in assessing their pupils'

Find these materials at [www.ncetm.org.uk/resources/46689](http://www.ncetm.org.uk/resources/46689)

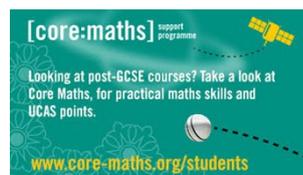
### Core Maths Update

Carrie Martin

At a regional training workshop in July, two Year 12 students from King's Oak Academy spoke about their experiences of Core Maths over the year. I felt really proud as they spoke to a room of forty adults about what the course had been like and how they felt about it.

Instead of simply learning techniques, the challenge has been to try to develop the ability to choose techniques to apply in different situations. The students have got better at doing this because they are doing it more often. It means that students need to be given time to work together in groups, discussing problems and deciding how to tackle them before they do.

It is really exciting to know that there are two new Year 12 groups starting Core Maths this September across the Cabot Learning Federation as well as a number of other centres across the region starting Core Maths teaching for the first time.



### NEW! Regional Bursary Projects

We know that sparks of innovation and valuable research can often fizzle out or not even get started due to lack of funding, time to complete and/or support to develop and embed.

**This year we are offering bursaries of up to £500 for action based research projects to deliver local needs of our hub region.**

Bids for bursary proposals can come from individual Hub members, faculties, TSA, local Masters/leadership programmes (e.g. NPQSL), the STEM centre etc.

Bursary projects can build on existing research and we will direct those who secure a bursary to experts within the hub region.

On completion of the projects, the results and findings regarding good practice will be shared in a variety of ways. It is expected that bursary holders will use several methods to communicate their findings as widely as possible. These methods may include the 2016 Boolean Hub Conference, the hub website, focused presentations to ITT students, presentations within faculties/alliances and federations/local authorities, e-mails with summaries of findings to PGCE and Masters programs.

For more information as to how/when to apply please contact [rhian.skinner@clf.cabot.ac.uk](mailto:rhian.skinner@clf.cabot.ac.uk)

Where can I find out more information?

How can I be part of the hub?

What events are happening in our region?

The answers to these questions and more on our new website....

**COMING SOON!**



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