

Bespoke

September 2018 | Issue No. 14 NEWS from the Maths Hubs Programme

Welcome to the latest issue of Bespoke, as one school year turns into the next. In this issue, we summarise the work Maths Hubs will be doing in 2018-2019. Recruitment onto most of the projects is open, and will continue throughout the autumn term.

WHICH MATHS HUBS PROJECT WILL YOU JOIN THIS YEAR?



On the middle pages of this edition of Bespoke, you'll find details of all Maths Hubs projects for 2018-2019. There's something for every phase of maths education: for teachers helping Reception age and younger children develop their early understanding of number, to those helping students prepare for the first sitting of the new maths A levels next summer. Some of the projects are explicitly flagged as having a teaching for mastery flavour, but the aim of all of them, of course, is helping teachers improve their practice so that children and teenagers develop deep understanding of maths, that stays with them as they go up school or out into the wider world.

The ever-present factor is that a group of teachers, led by an expert in leading maths professional development work together over a period of time to explore improved ways of teaching maths, and share their experience and findings with colleagues back in their department or school.

So, turn the page and find something that will help you and your colleagues develop further as maths teachers this year!

PODCASTS: A NEW WINDOW ON MATHS HUBS WORK

The NCETM podcast, now moving into its second year, shines a light on much of the work going on in Maths Hubs. And many of the episodes from 2017-2018 will give you a good flavour of what sort of work you can get involved in this year. Among the topics still available to listen to are:

- Maths specific lesson observation in primary school
- Continuity of learning between Year 5 and Year 8
- What 'mastery' means in secondary maths
- What a Core Maths lesson consists of

So, if you have a spare half-hour, go to ncetm.org.uk/podcast, look for 'previous episodes,' grab a cup of tea and listen to maths teachers talk.

HOW TO TAKE PART:

If you'd like to participate in any of this professional development, then contact your local Maths Hub: mathshubs.org.uk

WHICH FREE PROFESSIONAL DEVELOPMENT WORK GROUP WILL YOU JOIN THIS YEAR?

Every Maths Hub, working alongside the NCETM, runs Work Groups within national projects, across all school and college phases. Work Groups involve teachers engaging in collaborative professional development around agreed outcomes and are evaluated to inform subsequent years' projects. They are mainly free to join with funding occasionally available to subsidise staff cover.

EARLY YEARS

Developing mathematical subject knowledge

Establishing a secure mathematical subject knowledge is a key priority for those working in nursery and Reception classes. Maths Hubs will focus on this, offering Work Groups for:

- Those new to EY, or with limited experience teaching maths, to focus on subject content and pedagogy
- Experienced practitioners looking to develop a research-informed approach

SECONDARY

Teaching for Mastery Programme:

What does effective mastery of maths look like for secondary school students? Adapting the successful primary programme, Secondary Mastery Specialists will support Work Groups made up of two schools, and provide bespoke in-school support.

Challenging topics at GCSE: Through analysis of what makes a topic 'challenging', and how to be effective in teaching that particular topic, teachers develop an approach that they can use across mathematical areas and key stages. Students will develop a deeper, more connected understanding, gaining confidence to tackle a range of challenging questions.

Mathematical thinking for GCSE: Work Groups in this project will address the reasoning and problem-solving challenges of the mathematics curriculum and its assessment at GCSE. Professional development activities will focus on practical and accessible classroom-based approaches.

ITT PROVIDERS NETWORK

Local networks of ITT providers are being created in Maths Hub areas, to share expertise and promote the establishment of teaching for mastery in the practice of new teachers.

LOCAL LEADERS OF MATHS EDUCATION

Every Work Group is led, at local level, by a teacher experienced in leading maths-specific professional development. Across the Maths Hubs Network this leadership capacity continues to be supported by:

- An LLME network community supported in each Maths Hub

And expanded through:

- Increasing numbers of Mastery Specialists (primary and secondary) receiving national training and local support
- NCETM Accredited Professional Development Lead programme, for teachers working with colleagues beyond their own school
- Running national workshops for Work Group leads and maths SLEs to collaborate and share best practice

IMPROVING SEND PROVISION

Building on work established in a few hubs, this new national project will establish local Work Groups of teachers from mainstream and special schools, collaborating to improve SEND provision. They will particularly explore ways to promote reasoning and use of manipulatives.

PRIMARY

Teaching for Mastery

Maths Hubs are exploring effective models of practice in a range of areas:

- Expanding the national Teaching for Mastery Programme involving 400+ Mastery Specialists, each supporting Work Groups of 6/7 schools in adopting teaching for mastery.
- Introducing a new 'Mastery Readiness' programme for schools wanting to introduce teaching for mastery in 2019/20.
- 'Developing Mastery' Work Groups for schools already teaching for mastery with teachers who want to delve deeper into one of the following areas: **Lesson Design** (including use of textbooks/NCETM materials), **Intervention** for keep-up not catch-up, or providing opportunities for pupils to work at **Greater Depth**.

YEAR 5 TO YEAR 8 CONTINUITY

Students sometimes stall in early Key Stage 3. In this project, primary and secondary teachers collaborate to share representations and methods that become familiar to students and can be used across the transition.

Work Groups will adopt one of two approaches:

- Focusing on a specific curriculum or pedagogical area
- Deepening students' understanding of multiplicative reasoning across curriculum topics

POST-16

*Developing A level teaching:

Work Groups in this project will explore the demands of the new A level, as participants develop knowledge of the content and requirements of the specification and understand the purpose of the overarching themes.

***Embedding A Level technology:** The new A level requires that the use of technology 'permeates' study of maths and statistics modules. These Work Groups explore practical approaches for integrating technology in the curriculum to enhance mathematical understanding.

***Supporting Core Maths:** Teachers in schools or colleges either new to Core Maths or looking to expand existing provision can join Work Groups exploring the philosophy and practicalities of this qualification, as well as best use of existing classroom resources.

Supporting post-16 GCSE resit: Teachers of resit groups from FE, schools and colleges will collaborate to develop effective ways to approach the new GCSE for resit students, with a specific focus on issues particularly affecting this sector such as: student confidence and motivation, condensed timeframe, and large student numbers.

*These projects are run in conjunction with the Advanced Maths Support Programme (AMSP)

SUBJECT KNOWLEDGE ENHANCEMENT

There's more to subject knowledge than knowing how to do the maths yourself. Teachers and teaching assistants need a clear understanding of how a child can best initially grasp and then develop and retain mathematical concepts. This year, Maths Hubs are running separate Work Groups in this area for primary teachers, and for TAs in primary and secondary schools.

MATHS AFTER GCSE: A NEW SUPPORT LANDSCAPE FOR TEACHERS

This year, Maths Hubs are working alongside a new organisation, the Advanced Mathematics Support Programme (AMSP), in supporting teachers of Level 3 maths, which includes A/AS level courses in all maths subjects, and also the relatively new qualifications in the Core Maths category.

But the change isn't as big as it sounds, because the AMSP is carrying on much of the work, with many of the same people, as the Further Mathematics Support Programme (FMSP) which has had such a positive impact on the numbers of Year 12 and 13s taking A and AS level maths. It is also taking on support for Core Maths.

So, all Maths Hubs work is coordinated with everything offered by our colleagues at AMSP. This year, there are Maths Hubs Work Groups addressing professional development areas in A level and Core Maths in addition to numerous CPD offerings from AMSP. Every Maths Hub has someone filling a 'Level 3 Lead' role, who has an overview of what's on offer. So, contact your local Maths Hub to discuss your, and your department's, CPD options this year.



Advanced Mathematics
Support Programme



Sarah Charlton
@sjcharlt

Following

Huge thanks to [@monksabbey](#) for hosting the final teacher research group of the year. It's been a fantastic year of learning and exploration of mastery with an amazing group of practitioners! Looking forward to working with you all again next year!
[@MinsterMathsHub](#) [@NCETM](#)

MASTERY: PLAN AHEAD FOR 2019-2020

Have you missed your chance to get involved in a mastery project this year? Don't worry, because in both primary and secondary phases, the funding is increasing, and next year (2019-2020) there will be more opportunities for schools to sign up to free professional development programmes to support the introduction of teaching for mastery. In particular, there will be places in every Maths Hub area for schools to join a Teacher Research Group, led by a Mastery Specialist, for a year-long programme of collaborative learning, involving shared lesson planning, observation and discussion. *Watch the NCETM newsletters for details during the autumn term.*