

# Bespoke

August/September 2020 | Issue No. 19

NEWS from the Maths Hubs Programme

**Welcome** to the latest issue of Bespoke, as schools continue to adapt to the post-lockdown phase, and Maths Hubs plan for most professional development activity to take place online. But the usual rich mix of CPD opportunities is still on offer. And three new hubs have joined the network!

# 3

## NEW MATHS HUBS



**MathsHUBS**  
Origin

**Covering:**  
Solihull, Coventry  
and Warwickshire



**MathsHUBS**  
Möbius

**Covering:**  
Bracknell Forest, Reading, Swindon,  
West Berkshire, Wiltshire and Wokingham



**MathsHUBS**  
Venn Essex

**Covering:**  
Most of Essex

The new hubs will start work properly when the next school year gets going in September, but they can all be contacted now, particularly if schools want to know about CPD activities in the autumn.

Any state-funded schools and colleges wanting support from their local Maths Hub can find out which local council areas are served by each hub. If you want to check which is your local hub, visit [www.mathshubs.co.uk/find-your-hub](http://www.mathshubs.co.uk/find-your-hub).

All schools and colleges in England, regardless of geographical location, are entitled to participate in and benefit from the work of a Maths Hub. Multi-academy trusts that span boundaries can contact any hub where one of their schools is located.

To find and connect with your local hub, and to find out more about the work of the Maths Hubs Programme and the opportunities on offer, visit [www.ncetm.org.uk](http://www.ncetm.org.uk).

## WORK IN 2020/21 ADAPTED TO ALLOW FOR COVID RECOVERY

Work in all Maths Hubs projects in 2020/21 is being shaped to accommodate the ongoing impact on school life caused by the coronavirus outbreak. The characteristic collaboration in Work Groups between teachers from closely located groups of schools will take place predominantly online at least until Christmas. But, as you can read on page 4, this won't necessarily make working a less rich experience. In addition, the content of all projects is being adapted, so that it addresses schools' needs on the road back to normality, as well as the central maths pedagogical subject matter handled in each Work Group.

With that background, all hubs are offering schools opportunities for teachers to join Work Groups to develop maths teaching in the now established mix of areas.

- **Early Years:** building the mathematical foundations for moving into KS1
- **Teaching for mastery:** at both primary and secondary, schools can take part at varying levels, according to their current experience in mastery approaches to maths teaching
- **Primary/secondary transition:** Work Group looking at smoothing progression from Year 5 to Year 8
- **GCSE:** mathematical thinking and challenging topics
- **A level and Core Maths:** developing pedagogy in both areas of Level 3 maths

See pages 2 and 3 for full details, or talk to your Maths Hub to find out what's right for your school [www.mathshubs.org.uk](http://www.mathshubs.org.uk)

# MATHS HUBS PROJECTS 2020/21

## HOW TO TAKE PART:

If you'd like to participate in any of this work, contact your local Maths Hub to find out how your school can get involved [www.mathshubs.org.uk](http://www.mathshubs.org.uk)

Every Maths Hub is again offering opportunities for schools to develop their maths teaching. The work spans the school and college phases, and addresses a range of themes. All Work Groups are broadly similar in structure, with schools and teachers at hub level engaging in professional development activities around an agreed targeted outcome. Just as in earlier year, results and successes will be measured and evaluated, and will inform subsequent years' projects. Contact your local hub to find out which projects suit your school.

## EARLY YEARS

### Building Firm Mathematical Foundations in Reception:

Work Groups in this project are aimed at schools who are currently developing mastery school-wide. Early Years practitioners and senior leaders will develop their understanding of how EY best practice feeds into a teaching for mastery approach and supports progression, specifically exploring how to link teaching in EYFS and teaching for mastery (The Five Big Ideas) in Year 1.

## PRIMARY

Teaching for Mastery – Maths Hubs are supporting schools at every stage of introducing and embedding a teaching for mastery approach:

- Establishing Work Groups of teachers from schools who are becoming 'mastery ready', who are introducing teaching for mastery, and who are continuing the work started in 2019/20 primary mastery projects.
- Work Groups are available for schools at four stages of introducing and sustaining teaching for mastery: Mastery Readiness, Development, Embedding and Sustaining.
- All primary mastery Work Groups focus on supporting schools to develop strong curriculum, teaching and professional development practices that reflect a teaching for mastery approach.

## STRADDLING THE TRANSITION

### Year 5 to 8 Continuity:

Primary and secondary teachers collaborate on this project, to ensure continuity of mathematical learning from Year 5 to Year 8. Work Groups will take an aspect of the mathematics curriculum or a pedagogical approach as the focus for their work and develop a consistent approach to it.

## SECONDARY

**Teaching for Mastery:** What does effective mastery of maths look like for secondary school students? Work Groups will probe this area, with participants becoming 'Mastery Advocates' and developing their pedagogy and knowledge through bespoke support from a Mastery Specialist. Schools who have already begun to develop teaching for mastery can participate in Work Groups that promote understanding of how to sustain the approach department-wide.

**Challenging Topics at GCSE:** Tackling GCSE Maths presents challenges for students and teachers alike. Work Groups will explore a single GCSE 'topic', establishing what the issues and the common misconceptions are, how these might be addressed, and how teaching in KS3 might improve understanding for this topic in KS4.

**Mathematical Thinking for GCSE:** Work Groups offer teachers and their departments nationally coordinated support to address the reasoning and problem-solving challenges of the maths curriculum and its assessment at GCSE.

## POST-16

**Supporting Post-16 GCSE resit:** These Work Groups get to grips with a variety of methods designed to support teachers of students resitting their Maths GCSE.

These Level 3 projects are all run by Maths Hubs in partnership with the Advanced Maths Support Programme (AMSP).

**Developing Core Maths Pedagogy:** Teachers either new to Core Maths or looking to expand existing provision can join Work Groups exploring the philosophy and practicalities of this qualification.

**Developing Pedagogy in A Level Mathematics:** The demands of A level Maths are explored, as participants develop knowledge of the content and requirements of the specification and understand the purpose of the overarching themes.

## SPECIALIST KNOWLEDGE FOR TEACHING MATHEMATICS (SKTM)

There's more to subject knowledge than knowing how to do the maths yourself. Teachers and teaching assistants need to have a clear understanding of how children grasp and retain mathematical concepts. This year, Maths Hubs are running training programmes with this objective for EY practitioners, primary teachers, and TAs in primary schools.

## ITT PROVIDERS

In each Maths Hub area, a network of ITT providers will be created, to develop working partnerships, spread good practice, and share work on mastery with trainee teachers.

## WHO LEADS THE WORK?

Throughout the year, there are also various programmes to develop and maintain a nationwide group of local leaders of maths education (LLMEs) who lead all Work Groups. Across the Maths Hubs Network, projects exist to enhance this leadership capacity and to support those seeking to become LLMEs. This leadership emerges and grows in many ways:

- Developing Mastery Specialists in primary and secondary schools.
- Running national workshops for maths SLEs to learn from each other.
- Supporting teachers who have attained, or who are seeking to achieve, NCETM Accredited PD Lead status.
- Maintaining local networks so local leaders of maths education can stay in touch.

## Covid-19 Recovery

The ongoing impact of the coronavirus outbreak and knock-on effects on school life remain uncertain.

So, all Maths Hubs work will adapt to changing realities. There's likely to be more live online collaboration, for example. In addition, Work Group content will address both schools' recovery from coronavirus-related disruption and the central maths subject matter of each project.



# MATHS HUBS PROFESSIONAL DEVELOPMENT GOES ONLINE!

Like the rest of the education world, during lockdown Maths Hubs moved their CPD offer online, adapting quickly to the new environment. This enabled teachers to continue to access high quality professional development while schools were closed, and to keep collaborating with colleagues locally and further afield. We asked hubs what they had done and how it had gone, and this is what they said:

## North Mids Maths Hub

*We delivered training sessions to our Mastery Specialists and Work Group Leads so they were confident to offer their own online delivery to Work Groups. Many then ran multiple sessions to accommodate all participants. We had a fantastic response from participants in all Work Groups.*

## Turing NW Maths Hub

*Many unexpected positives have come out of our move online. The primary video lessons and post-lesson discussions have led to high engagement, with one participant commenting "In the current situation we are faced with, the videos are most helpful in demonstrating concepts."*

## Matrix Maths Hub

*We have set up our own hub YouTube channel, hosted Zoom calls and recorded videos. Nearly all our Work Groups have been able to continue and finish their final sessions through the ingenuity and sheer commitment of our Work Group Leads. One participant fed back "I feel well-equipped to support colleagues to provide support for their pupils too, thanks to our most recent Work Group."*

## North West One Maths Hub

*The response to our online offer has been incredible. We have used Basecamp and Zoom to maintain our Work Group activity, enabling in-depth discussions and hands-on planning. One participant enthused "I really enjoyed it all. I found it interesting and thought-provoking, as well as it providing me with a really useful diagnostic tool. The webinars were very engaging too."*

## Angles Maths Hub

*We have offered narrated PowerPoints because this offered a flexible model of continued engagement, alongside one-to-one online calls to support schools further. Having a balance of work that participants could do in their own time helped to keep the pressure off and provide flexibility.*

## North-East Hants and Surrey Maths Hub

*We chose to use Zoom, with Work Group Leads providing pre-reading or videos prior to focused online group discussions. Groups were very flexible, and we took regular feedback to refine the process. We also held a total of eight online network meetings, with hundreds of local teachers attending. This collaboration will now move to Basecamp as we continue to support local teachers in the unknown territory of the new term.*

## Cambridge Maths Hub

*Online sessions have proved to be useful for participants from hard to reach areas where geographical location is a challenge. Work Group Leads quickly adapted to running online sessions - many went from being a novice to an expert user in one week!*

# MATHS HUBS MASTERY SPECIALISTS CREATE VIDEO LESSONS

When the country went into lockdown in March, the NCETM was one of many organisations that tried, in a hurry, to provide some material to support home learning. The decision was quickly taken to combine the teaching expertise of some of the Maths Hubs' Primary Mastery Specialists with the mastery professional development resources that already existed on the NCETM's website.

A small group of Mastery Specialists was recruited, and a production line quickly came into existence, led by the three members of the NCETM's Primary Team.

The result was the creation of weekly batches of around 15 video lessons, split into three age groups: KS1, Lower KS2 and Upper KS2. The lessons were carefully sequenced: each lesson building on the learning of the previous one, and preparing for learning in the following one. The teachers 'taught' via a video box embedded into a slide presentation.

Over three months, more than 60 Mastery Specialists and Teaching for Mastery Leads, representing every Maths Hub, gave their time to the project. In total, more than 150 lessons were created and published and total views of the lessons, on the NCETM's YouTube channel, quickly exceeded half a million.

Every week a small group of teachers met with the NCETM's Primary Team and, over a couple of days, planned sequences of lessons together, before one of them recorded the lesson itself. One of those teachers was Jonny East, a Mastery Specialist working with London Central and West Maths Hub. He found his experience rewarding on a number of levels.



*"I've really enjoyed everything to do with recording these lessons. I think they will be so useful for so many people going forwards. The process we—as a small group—went through in designing the lessons was a really powerful experience for me, particularly when we all challenged each other on which numbers, contexts and representations would be used in each part of each lesson. Great personal professional development for me."*