

# Bespoke

December 2018 / January 2019 | Issue No. 15 NEWS from the Maths Hubs Programme

**Welcome** to the latest issue of Bespoke, as a new calendar year starts and the mid-point of the school year approaches. In this issue, we reflect Maths Hubs' work in all three school and college phases, and tempt you to listen to a podcast where two teachers explain how being in a Work Group gave them a rich professional development experience.

## COMING SOON: MASTERY MATERIALS SUPPORTING SECONDARY TEACHERS

**Y**OU may have seen the mastery professional development materials aimed at primary school teachers. Written by classroom teachers working with Maths Hubs, they have been downloaded more than 100,000 times. Now, similar materials are on the way for Key Stage 3 maths teachers.

The secondary materials, due to be published during the 2019 summer term, are also being produced by teachers working closely with Maths Hubs, in particular linked to the Secondary Mastery Specialists Programme.

### The key aims are:

- to provide anyone leading maths-specific professional development (including heads of maths) with materials to use when working with groups of teachers, to enable them to understand various aspects of teaching for mastery
- to describe key themes and core concepts of the KS3 curriculum to promote a connected view of the curriculum and to support the development of teachers' subject knowledge and subject-specific pedagogy
- to analyse the KS3 curriculum through a series of small steps to aid maths departments in their curriculum planning.

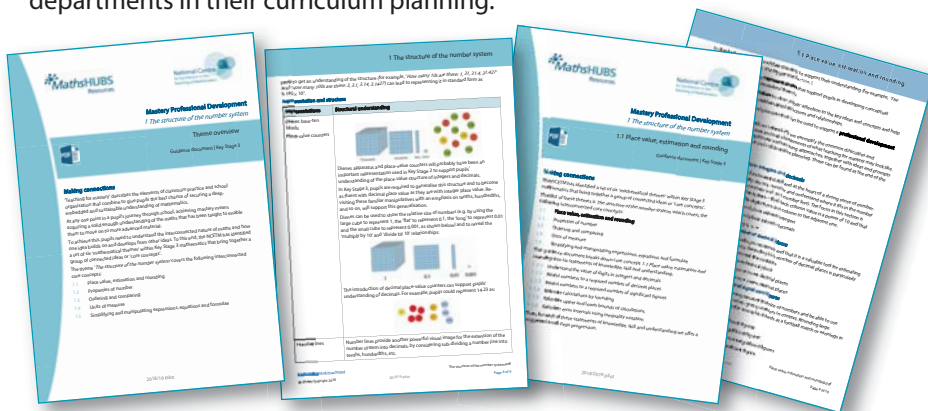
### How the materials are organised

To support teaching for secure and deep understanding, the materials break the KS3 curriculum down into six overarching themes:

- The structure of the number system
- Operating on number
- Proportional reasoning
- Sequences and graphs
- Statistics and probability
- Geometrical reasoning

**Frances Carr, Surrey Plus Maths Hub Lead and a teacher at St John the Baptist School in Woking, is one of the writers of the new materials.**

*What we're trying to do is support teachers' pedagogical subject knowledge, so that they can help their students build deeper and more sustainable understanding. These will not be lesson plans, but materials to help teachers think deeply about mathematics teaching and learning, plan and design lessons together, and embed teaching for mastery approaches in their own classrooms and across their department.*



### Podcast: Being in a Maths Hub Work Group

In a recent podcast, two secondary maths teachers described being in a Work Group looking at mathematical thinking. We think it shows the real value of the Work Group model: a group of teachers from different schools collaborating over the course of a school year in a specific area of maths education, and doing so as part of a national project. Worth half an hour of your time?

[www.ncetm.org.uk/workgrouppodcast](http://www.ncetm.org.uk/workgrouppodcast)

# PROFESSIONAL DEVELOPMENT FOR TEACHERS OF MATHS BEYOND GCSE

A rich variety of opportunities throughout the school year (2018/19) through collaboration between  **MathsHUBS** and the **Advanced Mathematics Support Programme (AMSP)**

Professional Development



## Core Maths

### Already teaching Core Maths?

- Attend a one-day conference or workshop; titles include:  
Problem-solving in Core Maths  
Keeping the Context Alive  
Developing a Core Maths Lesson.

### Thinking about teaching Core Maths?

- Attend a one-day conference to find out more about Core Maths and approaches to teaching it.

## A level Mathematics

### Already teaching A level Mathematics?

- Select from a range of sustained courses designed to develop your subject knowledge and classroom practice, including statistics and mechanics.
- Attend a one-day course focused on your area of interest; options include problem-solving, reasoning and embedding the use of technology.
- Need something more flexible? Try the online and on-demand options.

### Thinking about teaching A level Mathematics?

- Book onto a course designed to support teachers of GCSE Mathematics who wish to teach A level Mathematics for the first time.

## A level Further Mathematics

### Already teaching A level Further Mathematics?

- Select from a range of sustained courses designed to develop your subject knowledge and classroom practice, including further pure, statistics, mechanics and discrete maths.
- Attend a one-day conference or workshop focused on your area of interest; options include further pure, statistics, mechanics and discrete maths.
- Need something more flexible? Try the online and on-demand options.

### Thinking about teaching A level Further Mathematics?

- Book onto a sustained course designed to support teachers of A level Mathematics who wish to teach A level Further Mathematics for the first time.

## Supporting Core Maths

If you teach in a school or college new to Core Maths or are looking to expand existing provision, join this Work Group exploring the philosophy and practicalities of these qualifications, as well as making best use of existing classroom resources.

## Developing A level pedagogy

The demands of the new A level are explored in this Work Group. You gain a deeper understanding of the requirements of the specification and the overarching themes, while developing others in your department.

## Embedding A level technology

The new A level requires that the use of technology 'permeates' the study of maths and statistics. This Work Group explores practical approaches for integrating technology in the curriculum to enhance mathematical understanding. It also develops participants as technology champions in their own department.

Work Groups



## What is the AMSP?

The Advanced Mathematics Support Programme (AMSP) works to improve the teaching of maths beyond GCSE. It offers a comprehensive range of professional development opportunities at locations throughout England. Course fees are low and often fully subsidised. In addition, the AMSP arranges local network meetings that focus on sharing good practice.



## What is a Work Group?

Maths Hub Work Groups typically consist of a small group of teachers from local schools and colleges, led by an expert in maths-specific professional development and the area of maths concerned. The group meets, communicates and collaborates throughout the year, working towards common objectives with other Work Groups around the country.



# LEADING PRIMARY TEACHING FOR MASTERY ACROSS A MATHS HUB

The London North East Maths Hub is led by Elmhurst Primary School, in east London, not far from Stratford. The hub leadership, based at Elmhurst, deploy a network of experts – all school-based primary teachers – to ensure that primary teaching for mastery is having an impact across a wide area.

WHILE every Maths Hub has a lead school at its organisational centre, leadership of the work it does is distributed far and wide. This is particularly the case in teaching for mastery in primary schools, where, across the country, thousands of primary schools have already started implementing mastery approaches after taking part in Maths Hub projects.

The London North East Maths Hub area stretches across seven London boroughs and encompasses more than 600 schools. Overseeing and leading teaching for mastery work across this area takes a team. Managing that team is Danny Wagstaff, the hub's primary Teaching for Mastery Lead, based at Sandringham Primary School, half a mile away from Elmhurst.

Danny coordinates the work of eight Mastery Specialists—all products of a year-long development programme run

by the NCETM and the Maths Hubs Network, and spread across east London. Each Mastery Specialist runs a Work Group (also known as a Teacher Research Group) of six or seven schools, which meets once a half-term across the year, discussing teaching methods, watching each other's lessons and collaborating online in between meetings. Each Mastery Specialist also pays a personal support visit to every school in the Work Group once a term. A further seven teachers are this year undergoing training to become fully fledged Mastery Specialists, with their own Work Groups, in 2019/20.

The lead school plays a key role in the selection of all the Mastery Specialists.

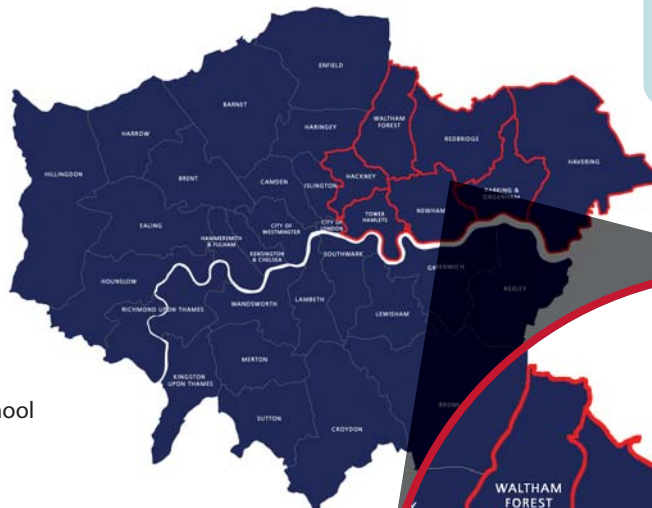
**'Everyone who applies to be a Mastery Specialist is observed teaching in their own school first, as well as having to complete an application form and attend an interview. It is really important to the hub that the people appointed to these roles are excellent teachers. They go on to receive high-quality training, and are expected to deliver equally high-quality training themselves.'**

**The hub also organises an annual mastery conference, attracting hundreds of teachers and heads from across the boroughs, which is often the catalyst for schools to engage in the hub's wider programmes in the field of mastery.'**

**- Nia Silverwood and Samira Islam, co-leads for the Maths Hub**

## Key

- Maths Hub Lead School
- ▲ Teaching for Mastery Lead's school
- Schools of Mastery Specialists



**'I see my role as keeping in close touch with the Mastery Specialists, hearing about any problems and helping them find ways to solve them. It's also my job to challenge them and to act as a sounding board. I have to look ahead and play my part in helping the hub recruit more schools to take part in the programme in future years too. Keeping in touch with teachers doing my role in other hubs across the country is also important, so we can share experiences. This is the same for the Mastery Specialists who often meet up to share best practice.'**

**- Danny Wagstaff, Teaching for Mastery Lead (primary) for London North East Maths Hub**