

# 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.

