

# 2019-20

## PROFESSIONAL DEVELOPMENT OPPORTUNITIES

EARLY YEARS

PRIMARY

SECONDARY

LEVEL 3

**Cornwall and West Devon Maths Hub is pleased once again to offer a comprehensive range of CPD opportunities.**

**As well as Teaching for Mastery Workgroups (supported by both Primary and Secondary Mastery Specialists), we are offering the following range of opportunities for teachers and schools to work together on a variety of focused areas around mathematics education.**

**All work groups provide opportunities to think together with colleagues and try things out in your own classrooms.**

**If you are interested in receiving further details of any of these projects please contact our Hub administrator Caitlin Horsley:**

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# EARLY YEARS

Maths Hubs Network Collaborative Projects 2019/20 (NCP 19/08)

## Supporting effective transition from Reception to Year 1

### Overview:

Many schools are adopting a teaching for mastery approach in mathematics. The starting point for a school is usually Year 1 and then thought is given as to how the approach is built across KS1 and KS2. Schools naturally want to consider the teaching of mathematics in Reception and how the transition to Year 1 can best support children's learning.

The Work Groups in this project will start by exploring best practice in Early Years and how the principles might build a secure foundation in mathematics for transition into a teaching for mastery approach in Year 1. It will consider the curriculum - what children need to know and understand; approaches to planning and the inclusion of all children; and appropriate resources and contexts for effective learning.

### Who is this for?

This project is aimed at schools who are already committed to teaching for mastery and have previously engaged in a Maths Hub Teaching for Mastery Work Group. A pair of teachers should attend from each school: a Reception teacher and the teacher leading on teaching for mastery within the school. One of the sessions will be aimed at senior leaders within the school, and the headteacher or deputy head should attend this session.

### What is involved?

A mixture of face-to-face sessions supported by gap tasks.

This session will be run by Helen Williams (Mathematics - Early Years) and Josh Lury (Deputy Maths Hub Lead)

# PRIMARY

Maths Hubs Network Collaborative Projects 2019/20 (NCP 19/12)

## Primary Lesson Design

### Overview:

Refining understanding of good lesson design, and being able to use resources well, is a crucial element in developing teaching for mastery. Teachers in this Work Group will work together to plan exemplar lessons (drawing on new Mastery Professional Development Materials produced by the NCETM and Maths Hubs, and other sources of mastery resources for the classroom including textbooks) and in so doing will improve lesson design across their school.

### Who is this for?

Schools that have made a significant commitment to teaching for mastery in their curriculum planning are invited to nominate two teachers for the Work Group. It is recommended that schools have participated in a TRG Work Group, but this is not essential. It will also be suitable for schools that have taken up textbook match funding and are looking for support with good use of the new resources.

### What is involved?

A mixture of face-to-face sessions supported by gap tasks.  
This session will be run by Josh Lury (Deputy Maths Hub Lead)

Maths Hubs Network Collaborative Projects 2019/20 (NCP 19/13)

## Primary Intervention in a Mastery Context

### Overview:

Whole class teaching is becoming embedded across schools using a teaching for mastery approach. This Work Group will consider models of intervention in a mastery context to ensure that mathematics teaching has maximum impact for all children. Teachers and leaders will further their understanding of teaching for mastery by using case studies to inform their practice. They will trial an intervention models and will document their observations to share with others

### Who is this for?

Schools that have made a significant commitment to teaching for mastery in their curriculum planning are invited to nominate two teachers for the Work Group. It is recommended that schools have participated in a TRG Teaching for Mastery Work Group, but this is not essential.

### What is involved?

A mixture of face-to-face sessions supported by gap tasks.  
This session will be run by Andy Tynemouth (Independent Consultant)

# PRIMARY

Maths Hubs Network Collaborative Projects 2019/20 (NCP 19/14)

## Mixed-Age Planning in the Context of Teaching for Mastery

### Overview:

The project will involve the trialling and reviewing of a range of approaches to deal with the issue of planning for mixed age classes in a mastery context. Participants will explore current work and case studies from the innovation Work Groups which have previously looked at this issue.

Teachers will be able to engage with the approaches in their own schools and evaluate the impact on pupils. The Primary Mastery Professional Development Materials will underpin the work and provide a structure for planning.

### Who is this for?

Schools that have mixed age classes are invited to nominate two teachers for the Work Group. Where possible, one of the teachers attending the Work Group should be in a middle or senior leadership role (ideally the Maths Lead).

### What is involved?

A mixture of face-to-face sessions supported by gap tasks.

This session will be run by Kyle Marriott and Josh Lury (Deputy Maths Hub Lead)

Maths Hubs Network Collaborative Projects 2019/20 (NCP 19/24)

## Specialist Knowledge for Teaching Mathematics (Teachers)

### Overview:

Work Groups in this project – which are available for both primary teachers, and TAs– will develop their mathematical subject knowledge in conjunction with understanding the pedagogy that underpins the teaching of it. Understanding of mathematical structures will be explored so participants gain a detailed understanding of how children learn early mathematical concepts.

### Who is this for?

All Primary teachers.

### What is involved?

A mixture of face-to-face sessions supported by gap tasks.

This session will be run by Josh Lury (Deputy Maths Hub Lead)

# PRIMARY

Maths Hubs Network Collaborative Projects 2019/20 (NCP 19/24)

## Specialist Knowledge for Teaching Mathematics (Teaching Assistants)

### Overview:

Work Groups in this project – which are available for both primary teachers, and TAs– will develop their mathematical subject knowledge in conjunction with understanding the pedagogy that underpins the teaching of it. Understanding of mathematical structures will be explored so participants gain a detailed understanding of how children learn early mathematical concepts.

### Who is this for?

All Primary Teaching Assistants

### What is involved?

A mixture of face-to-face sessions supported by gap tasks.

This session will be run by Josh Lury (Deputy Maths Hub Lead) and Chris Hallett (Mathematics SLE)

# SECONDARY

Maths Hubs Network Collaborative Projects 2019/20 (NCP 19/19)

## Challenging Topics at GCSE

### Overview:

Feedback from teachers and GCSE exam analysis indicates there are key areas of the curriculum that students continue to find challenging. This Work Group will explore effective ways of teaching some of these topics, both to address the immediate needs of the incoming KS4 students, but also, crucially, taking a longer-term view by considering development in KS3.

The aim will be to get to grips with all the underpinning content of a topic, exploring misconceptions and effective pedagogical approaches for each element. The approaches also contribute towards the development of a generic process which departments could use as a 'toolkit' to lead the improvement of teaching and learning in any identified area of the curriculum students find challenging

### Who is this for?

Secondary school maths teachers and heads of department. Participants in the 2018/19 Work Group are welcome to participate again.

### What is involved?

Each Work Group will explore a single GCSE topic in depth. Participation will require attendance at four workshops spread across the year and include gap tasks. Any work produced will be shared across the hubs, giving access to a range of challenging topics.

This session will be run by Richard Perring (Secondary TfM Lead)

# LEVEL 3

Maths Hubs Network Collaborative Projects 2019/20 (NCP 19/21)

## Supporting Core Maths

### Overview:

The success of Core Maths depends in part on the growth of the pool of teachers, schools and colleges with the necessary expertise, experience and enthusiasm to teach it. This project, run collaboratively by the Maths Hubs Network and the Advanced Mathematics Support Programme (AMSP), will contribute to the wider national effort to grow that pool, and embed Core Maths confidence and culture within school and college maths departments

### Who is this for?

All current and potential teachers of Core Maths. These may be teachers in post-16 settings whose main subject is maths or whose main subject is not maths, and who may be unable to access local TSST provision for Core Maths.

### What is involved?

Through three face-to-face Work Group meeting days (or equivalent), participating teachers will develop their practice to effectively teach mathematical concepts and processes through contextualised problem-solving, lead others in their own department to ensure an effective delivery of Core Maths courses, and promote and deliver a Core Maths course in a way that engages qualified students. Participants may work collaboratively with other institutions using a school-to-school support model.

This session will be run by Debbie Bland (Level 3 Lead)

Maths Hubs Network Collaborative Projects 2019/20 (NCP 19/21)

## Developing Pedagogy in A Level Maths

### Overview:

In 2019/20, this project will run in Maths Hubs across England and provide support for developing the quality of teaching in response to the demands of the linear specifications for A level Mathematics and Further Mathematics. Run in partnership with the Advanced Maths Support Programme (AMSP), Work Groups in this project aim to develop existing A level pedagogy and support development of the requirements of the linear A levels and understand the purpose of the overarching themes in departments. Participants will gain confidence in leadership in departments and in developing others in their department.

### Who is this for?

It is suitable for people leading development of maths teaching and learning in departments with A level provision and other experienced A level teachers.

### What is involved?

Through three face to face Work Group meeting days (or equivalent), participating leaders of A level teaching or experienced teachers will develop their practice to effectively plan sequences of lessons which meet the requirements of the new A level, raise awareness in students of the links between mathematical topics within the new A level content, and support colleagues in their own schools/colleges in embedding themes from the course in their planning and delivery of new A level teaching.

This session will be run by Debbie Bland (Level 3 Lead)