# Maths Hubs Network Collaborative Projects SECONDARY 2019-20 

## GCSE Challenging Topics

## Work Group Information Sheet

NCP 19-19

## Overview:

Within the 'old' GCSE there were a number of topics that consistently proved challenging for many teachers and their pupils for a variety of reasons, either that the content itself was perceived to have an inherently high level of challenge or that it was less difficult material but somehow proved difficult to teach in a way that made sense to pupils, resulting, at best, in an instrumental understanding.
With the new GCSE the list of challenging topics has actually changed little from previous years, and an evidence-based list of challenging topics arising in the new GCSE was drawn up with awarding bodies.
Nationally, Work Groups are set up to explore effective ways of teaching some of these topics, both to address the immediate needs of the incoming KS4 pupils, but also taking a longer term view by considering development in KS3.

## Who should attend?

Secondary maths teachers wishing to begin or continue a programme of professional development to address the way particularly challenging topics are taught at GCSE. Ideally two teachers from each school will attend to enable a more effective dissemination of the key findings to the rest of the department.

## What is involved?

- Four half day workshops (1-4pm). Dates and venue TBC
- Gap tasks between the workshops allowing wider departmental participation in the professional development.
- As part of the professional development, there will be an evaluation process focussing on the impact of the Work Group.


## Intended outcomes:

Participant teachers and their departments will:

- appreciate that it is important to look further back in the locus of teaching rather than 'fire-fighting' in KS4.
- analyse what it is about these areas that makes them more challenging and how these questions are marked in the exam.
- explore what it means for teaching to be 'effective' and how this might be evaluated in class and through assessment in all its forms.
- explore issues with their colleagues such as the order in which topics are taught and when in their schemes these concepts are introduced.



## The wider context:

This national collaborative project focusses on one of the national maths education priority areas relating to 'supporting schools and colleges to address the challenges of teaching GCSE Mathematics.'

Each Maths Hub participating in a national project runs a local Work Group, where teachers come together over a period of time to work on areas defined by the project. All Work Groups are subject to a common evaluation process, which collectively provide a body of evidence on the project's outcomes. So, your participation in this Work Group will contribute to your own professional leaning, and that of your school colleagues, as well as making a contribution to the improvement of maths education at a national level.

## Expectations of the participants and their schools:

- Schools will need to commit to the release of the same nominated teacher(s) for all four workshops and to support them in the gap tasks. This will include supporting wider staff and department engagement between each workshop.
- The department will also support the participating teacher(s) to summarise the impact of Work Group participation as part of the professional development and Work Group evaluation.


## Funding:

There is no charge for participating in this Work Group.

## Who is leading the workgroup?

The workgroup will be lead by Emma Dunbavand, Head of Maths at St Augustines High School. Emma was a participant in the Challenging Topics Workgroup in 2018-19 and has since been appointed as one of the Cohort 4 Secondary Mastery Specialists for NW3 Maths Hub.

## How to get involved:

If you are interested in getting involved in this workgroup, please contact
Paula Foster at paula.foster@three-saints.org.uk to request an EOI (expression of interest) form quoting
NCP19-19 Challenging Topics.


