



Advanced Mathematics
Support Programme®

Continuing Professional
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Standard

National Centre
for Excellence in the
Teaching of Mathematics



GCSE Maths Conference: Making Connections

Leeds

15th July 2019

Overview

A free one-day professional development conference, designed for teachers of GCSE maths. A key part of the new GCSE is linking across different areas of the curriculum. *Making Connections* aims to share ideas and strategies to support teachers in developing their students' cross-subject skills.

The conference covers content that is relevant to all GCSE specifications.

Aims

- Share ideas and strategies for developing learning in the GCSE classroom.
- Share ideas and strategies for engaging students and extending their knowledge.
- Network and share ideas with fellow teachers of GCSE Mathematics.

Who will benefit from attending?

This conference is suitable for any teacher of GCSE Mathematics who wishes to develop their professional practice and the learning of their students.

Programme

The conference will welcome two plenary speakers:

Carol Knights – *Teaching for Mastery: Is it "Just good teaching"?*

Carol is NCETM Director for Secondary Mathematics.

One of the phrases you often hear about Teaching for Mastery is "Oh, it's just good teaching!". Here, Carol will set out the need for our profession to approach things a little differently, and share some of the ways in which teachers on the secondary programme are developing their thinking about teaching maths. We'll leave it to you to decide how the ideas of Teaching for Mastery fit with your own view of "good teaching" – and we invite spirited discussion over coffee afterwards!

Ben Sparks – *Making the Emotional Connections*

Ben is a mathematician and maths presenter, working regularly with Maths Inspiration, the AMSP and other maths communication opportunities.

In his plenary session, Ben will remind us of some surprises and shocks that help us connect maths topics together, and connect us to the maths topics.

Delegates will also attend two workshop sessions. When booking they will be asked to indicate four options in order of preference.

Session Title

Making Connections with Proof

More than number patterns

Making Connections with Technology

Cutting up squares: Enrichment material for KS3 and KS4

Practicing without them noticing

Provocative Questions

Thinking for reluctant thinkers!

Not just fun, but also useful

Session Description

Students sometimes find the concept of proof challenging and have difficulty reaching a successful result. In this session, delegates will explore proof across several topics, and strategies to support students in developing their skills will be explored.

In this workshop, we'll make connections from primary maths education to secondary topics such as sequences, modulo arithmetic, cryptography and algorithms. We'll keep you entertained with some magic. Remember to bring a coin and some coloured pens. Dotty paper is provided.

In this session, we'll look at how you can extend standard textbook/examination strategies for turning many types of questions into problem-solving activities across different areas of maths. Delegates are requested to bring a phone, tablet or laptop with a calculator [installed](#) on it.

How can you cut a 6 by 6 square into two pieces which can be rearranged into two triangles that are all acute angled? In this session, we'll look at problems like this and challenge students across a wide range of attainment levels.

Practising a technique repeatedly can be effective, but it can also lead to rote learning and to remember a sequence of steps and cease thinking mathematically. You can avoid this by the same practice but with a goal that prompts deep understanding and encourages students to devise such tasks.

In this session, we will look at questions drawn from a range of topics that challenge students to provoke genuine mathematical thinking. We will then devise our own 'Provocative Questions' that require understanding that is essential for success at GCSE.

In this session, we will look at activities that are engaging and fun, and help students develop a deeper understanding of maths concepts. The session includes some Dotty Paper activities.

This session explores ways to help students appreciate the relevance of mathematical techniques familiar to teachers of Core Maths, we will approach GCSE topics in a way that is

Cost

This conference is free of charge to state-funded schools and colleges. Teachers working in AMSP [Priority Areas](#) qualify for a £250 subsidy. Please visit the [AMSP subsidies](#) page for more information.

Key Facts

Event ref:	#5545
Audience:	Teachers
Curriculum focus:	11-16 maths
Mathematical focus:	Problem solving, Use of technology
Event format:	Conference
Event length:	1 day
Region:	Yorkshire and the Humber
Venue:	The Queens Hotel, City Square, Leeds, LS1 1PJ
Date:	Mon 15th Jul 2019
Course times:	09:30 - 15:30
Fee:	Free
Priority Area subsidy:	£250

Registration

For more information, or to register for this event, please visit <https://amsp.org.uk/events/details/5545>