

## **WORKSHOP 3      13.40 – 14.40**

### **3:1 Adrian Hall (G)**

*"Ratio Tables for Resit"*

Using ratio tables in GCSE Resit classes

### **3:2 Ciaran Henshaw (G)**

*"Mathematical Thinking in the GCSE Classroom"*

Mathematical Thinking is one of the NCETM's 5 big ideas of Teaching for Mastery. The session will look at techniques and resources for encouraging Mathematical Thinking in the GCSE classroom

### **3:3 Mike Thompson (G, AL, CM)**

*"Mathematical Task Design"*

Often, we think carefully about what we do as the teacher in the classroom and less about the exercises that students do. Chris McGrane's excellent book 'Mathematical Tasks- The Bridge Between Teaching and Learning' informs this session in which we explore how we can best use the times in a lesson when the students are working on the mathematics tasks. We will explore the considerations behind what a task is intended to achieve and a variety of structures that can be applied to different topics to promote fluency, understanding and problem solving.

### **3:4 Bernard Murphy (AL, PS)**

*"Chilli Problems, Group Work and Problem-Solving"*

Chilli problems each come with a chilli rating: an indication of the designer's perception of their level of difficulty. In this session you'll experience what it's like to work in a group on chilli problems before reflecting on the link between conceptual demand and chilli rating and how the problems might best develop problem-solving skills in A-Level Maths students. The hope is that the range of problems you work on and take away will inspire you to create more...

### **3:5 Christine Watson (CM, G)**

*"Core Maths & GCSE Resit Maths – Gapminder!"*

Explore four ways to use 'Gapminder' <https://www.gapminder.org/> to bring mathematics to life in the context of world data. We will look at the bubble graphs, the families in Dollar Street, and the trend graphs. Bring your own device to get the most out of the session.

### **3:6 Fiona Kitchen (AL, FM, PS)**

*"Problem Solving and Fluency for KS5"*

I talk about developing fluency and share a couple of exercises, then talk about and demonstrate ways to use TMUA and MAT questions with students or to develop your own resources.

### **3:7 Rose Jewell (AL, T)**

*"Using Graphical Calculators for A-Level Maths"*

Explore how using graphical calculators can help students to think graphically and build their understanding in Pure Maths and probability distributions. Many of the ideas can be transferred to other graph drawing technology. Please bring a graphic calculator or emulator if you have one. We will have access to a loan set of Casio fx-CG100 calculators, and the session will also cover using the CG50.