***WORKSHOP 2 11.15 – 12.15***

**2:1 Christine Watson (G)**

*“GCSE Resits - One Manipulative, Many Applications”*

Using double-sided counters to support student understanding across a range of mathematical areas. Hands-on experience in number, geometry and algebra, focusing on concrete to pictorial up to grade 4 and touching grade 5.

**2:2 Alex Jacques-Williams (AL)**

*“Teaching for Mastery at A-Level - Using Representation and Variation”*

We will look at two topics (logs and the binomial distribution/expansion) through the prism of how they might be approached conceptually using representation and variation.

**2:3 Sinead Vaughan (AL, PS)**

*“Embedding Problem-Solving in A-Level Maths”*

We will explore ways of incorporating problem-solving into A-Level Mathematics lessons and think about some of the considerations when adopting this approach to learning.

**2:4 Martin Bamber (FM)**

*“Modern Art is Rubbish! – Hypothesis Testing and Goodness-of-Fit”*

How likely is it that a novice will be able to identify genuine works of abstract art? How did the Poisson Distribution help win WW2? Will next season’s Premier league be as full of goals as this one? We’ll trace a route from simple A-Level statistics techniques through to more complex FM topics to learn how statistics checks its own homework.

**2:5 Mike Thompson & Andrew Birch (CM)**

*“Using Real Data in Core Maths”*

Core Maths provides a fantastic opportunity to look at real data with our students.

We will look at a data source and how to best use this with students including:

* A hook
* Which topics could be covered and how
* Different software (e.g Excel, Desmos and CODAP).

Participants will need to bring a device with them for this session!

**2:6 Rose Jewell (AL, T)**

*“Effective use of Scientific Calculators at A-Level”*

Exploring the functionality of scientific calculators with ideas on using them effectively for teaching, learning and confidence building.

**2:7 Abigail Bown (G, AL, FM, PS, GI)**

*“Tangles! Problem Solving with String”*

A hands-on enrichment session investigating something which is completely new to students/teachers. We’ll use mathematical problem-solving and reasoning skills to explore new concepts. We’ll apply basic maths (no knowledge beyond GCSE proof and fractions) to introduce new ideas. Tangles is related to knot theory; be prepared to play with string!

**2:8 Joel Haddley (GI)**

*“Transitions to University - a Lecturer's Perspective”*

I lead a first-year mathematics module that aims to support students as they transition from their previous learner context into the role of a university student. Challenges new students face often include becoming more independent in a less structured learning environment, developing a conception of mathematics that aligns with university expectations, and thinking beyond the degree. We will discuss strategies I use to address such challenges.