

Workshop Summaries: Canterbury Regional Day

1A Leading (or preparing to lead) a science department

Presenter: Tony Lyng

An interactive scenario-based workshop for Heads of Science or aspiring Heads of Science. The workshop, led by Tony, a former Head of Science and Headteacher, will include team-building activities, aspects of teaching and learning, resource- and curriculum-management.

1B, 2A RAF100 STEM activities

Presenter: Taj Bhutta

The IOP has produced a series of practical activities, for use primarily in STEM clubs, to support the commemoration of the 100th anniversary of the formation of the RAF. This session will introduce the comprehensive package of materials and activities. You will have the chance to try out some of the practical activities and learn how to fly! (KS3/4). Suitable for teachers and technicians. More information at: www.raf100schools.org.uk/activities

1C A Sense of Proportion: How To Get Them To Remember All Those Equations

Presenter: Colin Piper

So, how do we get them to remember 20-odd equations. This workshop eschews triangles and rote learning in favour of getting students to actually understand what is going on. There will be a number of practical tips that have been found to work.

1D Teaching Radioactivity Without Sources at Key Stage 4

Presenter: Sharron Mackenzie

If your school has no radioactive sources and you are looking for ways of bringing this topic to life, then look no further! Armed with balloons, a nerf gun, popcorn, Skittles and some bananas, Sharron will suggest some easy and inexpensive ways to model radioactive decay.

2B Gender Balance in the physics classroom

Presenter: Beth Bramley

Get right up to date with the research on gender issues in this session, and find out how unconscious bias can affect the way the subject comes across, especially to girls. Beth will go through some top tips on how we can make our teaching more inclusive for girls, including whole school approaches, and help to stop the leaky STEM pipeline.

2C Basic Electric Circuits at Key Stage 3

Presenter: Alan Baugh

A mostly practical session introducing and developing basic electric theory and practice. We will use the 'rope loop' model to explain common misunderstandings of circuit behaviour. Suitable for teachers and technicians.

2D Skilling Up Our Future Scientists!

Presenter: Lathan Norton

With the increased focus in the GCSE specifications on Working Scientifically and Mathematical skills, this session will offer some strategies for addressing these requirements in lessons. The session will make use of some sample material from a handbook which Lathan has produced and which is now being used across Key Stages 3 and 4.

3A A-level Required Practicals and CPAC

Presenter: Sharron MacKenzie

Sharron will run through some of the A-level Required practicals, both their subject knowledge and common pit falls. We'll ensuring that we can assess them for CPAC in an efficient manner, and that students can complete them in a manner that can support examination preparation.

3B Momentum: Who Needs It?

Presenter: Colin Piper

Momentum is a GCSE topic that oscillates in and out of the PoS reflecting the difficulties colleagues find in teaching it and students have in understanding it. This workshop begins with the premise that it is the word itself rather than the physics that is the barrier. Colin will help break down this barrier and give you some useful ideas for teaching this topic.

3C, 4C Oh no...it's Required!!

Presenter: Paul Cook

A hands-on session, especially for non-physics specialists and technicians, focusing on the AQA GCSE physics required practicals. With Paul's help, you will be setting up equipment: circuits, oscilloscope, ripple tank and standing waves to name a few, looking at how to use them to get the results you and your students need!

3D Literacy and Physics: Access and Stretch from 11 to 18

Presenter: Christina Astin

Christina will introduce the challenges of speaking, listening, questioning, reading and writing as applied to science. How can we support our students' literacy skills so that they can access the curriculum, and stretch the literacy skills of the higher attainers through writing about and even publishing in journals such as Young Scientists Journal (www.ysjournal.com)?

4A Isaac Physics for GCSE and A level Teaching

Presenter: Laura Kendrick

Isaac Physics aims to improve the problem-solving skills of Physics GCSE and A-level students. In this session, Laura and Ally will show you how to use Isaac Physics materials in your teaching. You'll also learn how to set (FREE) online homework assignments for your students and see their marks before they bring their work to the next lesson!

4B Fault-Finding Electric Circuits - for All Key Stages

Presenter: Alan Baugh

When circuits go wrong it's useful to have a methodology to help you diagnose and correct them. Alan's predominantly practical session will provide you with some basic tools to remove some of the anxiety experienced when running electric circuit practicals in school. Suitable for teachers and technicians.

4D Waves at Key Stage 4

Presenter: Liz Hutchins

In this session with Liz we will be looking at properties of waves including the GCSE core practicals. We will explore waves and some of their applications using a range of practical activities and readily available materials.