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 Energy: Getting to Grips with the New Language
Presenter: Ally Davies
In this session, we will discuss why it is opportune to rethink the way we talk about energy and look at some more helpful forms of language. Specifically, Ally will introduce the ideas of start & end points, stores and pathways. There will be opportunities to try out the new language in some examples you might use with students. Includes calculations and some practical demonstrations.

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.

2A, 3A A-Level Required Practicals and CPAC
Presenter: Ben Ford
Ben will run through some of the A-level required physics practicals, both their subject knowledge and common pitfalls. We'll be ensuring that we can assess them for CPAC in an efficient manner, and that students can complete them in a way that can support examination preparation.

2B Electromagnetism at Key Stage 4
Presenter: Stephen Long
After a brief recap of basic magnetism, we will look at Electromagnets, the Catapult Field and Motor Effect, Electromagnet Induction and Generators, Transformers and some demonstrations of Lenz's Law. Stephen's workshop will be based on experiments that can be done in the Physics classroom.

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.

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: Ally Davies and 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.