



STIMULATING
PHYSICS
NETWORK

Supporting physics
teaching and learning

Stimulating Physics | South West

PHYSICS TEACHERS' CONFERENCE

Teaching Physics - a day for everyone

22 June 2012 | University of Exeter, St Luke's Campus



Science Learning Centre South West, in partnership with the Institute of Physics, is offering a one-day physics conference. This special event offers a day of workshops and lectures for all teachers of physics. The workshops will be run by members of the IOP Physics Teachers Network or others experienced in presenting workshops for teachers. They have all received good reviews from teachers of physics.



Science
LEARNING CENTRES

IOP Institute of Physics

The Stimulating Physics Network is a partnership between the Science Learning Centres and the Institute of Physics, funded by the Department for Education.

SOUTH WEST PHYSICS TEACHERS' CONFERENCE

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For the workshop sessions you will need to choose two workshops from the four options below; one for the morning and one for the afternoon session. All the workshops have proved popular and useful, they will be presented by experienced physics teachers and consultants.



Workshop A: Materials in Action

In this presentation we will explore how materials have helped to change and improve the technology we rely on by looking at how they are used in computers, aircraft, sports equipment and medical devices. Metals, polymers, ceramics, composites and smart materials will be discussed in terms of their uses in these applications.

Dr Diane Aston Education Co-ordinator, The Institute of Materials, Minerals and Mining

Workshop B: Lights, Camera, Images

Lights, Camera, Images is an interactive workshop in which participants:

- will learn how to produce anaglyph 3D images using a simple digital camera
- explore other 3D phenomena
- have a go at a range of simple physics experiments based on the EM spectrum, lenses, UV and IR radiation, vision and perception

Some of the activities you may have seen before, others are reworkings of old favourites and some are new. All are chosen to promote curiosity in the physics behind them. The experiments could be presented as a starter activity, when the physics is being dealt with in a lesson, or as summary. They could be used in a science club or public event. Participants will leave with all the information they need to reproduce the experiments and to make their own 3D images.

Cerian Angharad IOP Teacher Network Co-ordinator

Workshop C: Spicing up your Particle Physics Teaching

Particle physics is an enthralling, fascinating and thrilling topic. It's right at the cutting edge of modern physics - the very idea of studying it inspires most sixth formers. However, by the time it has been boiled down by perhaps overly restrictive specifications, what's left sometimes ends up as a series of teacher-led chalk and talk lectures - limiting the pupil's experiences to just rote learning of the classification of particles, and their properties and interactions.

This workshop contains a selection of ideas and resources aimed at bringing particle physics to life. There will be demonstrations of some activities, a chance to trial a few, and time to discuss ideas together as a group.

All attendees will receive a CD to take away - packed with resources for you to spread around your departments.

Graham Bone Head of Physics, Exeter School

Workshop D: Make and Take a Cloud Chamber

Cloud chambers allow students to see the paths that ionising radiation has travelled. In this workshop you get to make a take away a cloud chamber big enough for a group of people to see into. You'll also get ideas for getting the most out of your dry ice.

Frances Green
IOP Teacher Network Co-ordinator



Sessions will be suitable for both those new to physics as well as experienced teachers and will concentrate on ideas that you can use in your labs. Technicians are also very welcome. Most workshops have limited numbers so they will be filled on a first come first serve basis.

During lunchtime participants will be able to browse stalls for resource ideas.

BOOKING FORM

22 June 2012 | University of Exeter, St Luke's Campus

FREE TO
ATTEND

Delegate Details*

Title _____ First Name _____

Surname _____

Job Title _____

E-mail _____

School _____

School Postcode _____

Access / dietary special requirements _____

Booking authorised by _____

*If more than one person from your school is attending please complete a separate booking form for each person so that we can allocate the workshop choices correctly.

Workshop choices

MORNING

1st choice _____

2nd choice _____

AFTERNOON

1st choice _____

2nd choice _____

Submit by email info@slcsw.org.uk Book by phone 0117 9157 257

Book online www.slcs.ac.uk/go/sw/swc11375

Submit by post CPD Day Booking | Science Learning Centre South West
At-Bristol | Anchor Road | Bristol | BS1 5DB

For more Stimulating Physics Network events across the South West visit:
www.stimulatingphysics.org/regions-southwest