

Booking form

Yorkshire and the Humber Regional Science Leaders' Conference: Raising standards through effective practical work

9.00 am – 4.00 pm, Thursday 4th March 2010, National Science Learning Centre, York
Course Fee £130 teachers, £95 technicians. The fee for additional teachers from the same school will be at a reduced rate of £95.

Register for the conference on-line at www.sciencelearningcentres.org.uk/yh. Alternatively, photocopy this form and fax to 0114 225 4872, post to: Science Learning Centre Yorkshire & the Humber, Floor 9, Owen Building, Sheffield Hallam University, Howard Street, Sheffield S1 1WB, or call 0114 225 4891.

Personal details

Title	First name	Surname
Position held		
Personal e-mail address		

School details

School name	
Local Authority	
Address	
Town/city	Postcode
Telephone	

Please select your option choices. We will try to accommodate your selections.

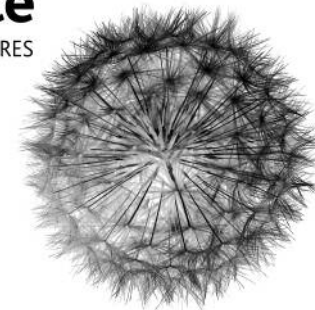
Workshop session 1	1st choice	2nd choice
1a – The Getting Practical Project		
1b – Technicians as Co-Educators		
1c – Practical Work Outside the Classroom		
1d – Assessing Pupil Progress (APP) through Practical Science		

Workshop session 2	1st choice	2nd choice
2a – Improving Practical Work for All Learners		
2b – Surely That's Banned?		
2c – Innovative Uses of ICT in Practical Work		
2d – Innovative Approaches to HSW in Practical Work		

Please state any dietary requirements

All applicants will be sent confirmation of booking by return and full conference details one week before the conference.

Science
LEARNING CENTRES



Yorkshire & the Humber Regional Science Leaders' Conference: Raising Standards Through Effective Practical Work

9.00 am – 4.00 pm
Thursday 4th March 2010
National Science Learning Centre, York

A conference for subject leaders, senior technicians
and key stage co-ordinators



Science
LEARNING CENTRES

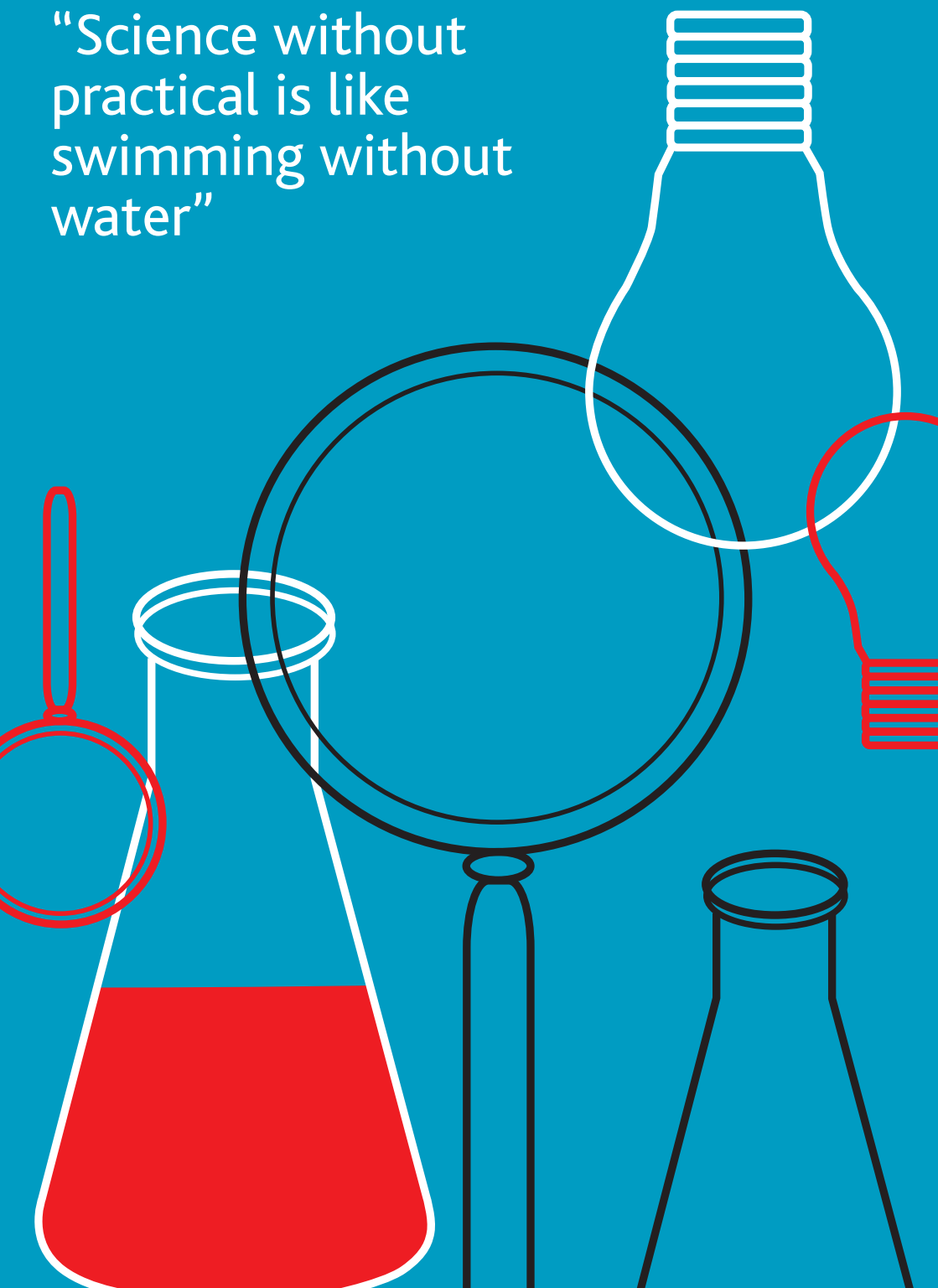
centre for
science
education

ASS
The Association
for Science Education



IOP Institute of Physics

"Science without practical is like swimming without water"



Yorkshire & the Humber Regional Science Leaders' Conference: Raising Standards Through Effective Practical Work

Thursday 4th March 2010
National Science Learning Centre, York

Everyone involved in science education agrees that practical work is an essential part of science teaching, but how can we ensure that we get the best from it?

This year's Yorkshire and the Humber Science Leaders' conference will look at the issues surrounding practical work in science and consider its key role in raising standards of teaching and learning.

Keynotes

Our keynote speakers will:

- explain current research about practical science
- describe case studies in which pupils' progression and engagement in practical science are explored, drawing on 'pupil voice'
- demonstrate how students can be engaged in science through exciting demonstrations

Workshops

Workshop sessions will be led by leading teachers and technicians in the region, and presenters from key organisations including the Association for Science Education, the National Strategies, CLEAPSS, and the Gatsby Science Enhancement Programme. These workshops will give you opportunities to explore and discuss key issues and gather new ideas.

Outcomes

You will:

- improve your awareness of current issues and research in practical science
- explore strategies for making practical work more effective
- formulate plans for addressing these issues in your school or college

The conference is aimed at leaders of science in secondary schools and FE colleges, including subject leaders, senior technicians, and co-ordinators of key stage 3 and 4 and post-16 science subjects. It would be particularly beneficial for teachers and technicians from the same school to attend the conference together.



Thanks to funding from DCSF, all teachers from maintained secondary schools and colleges are eligible for an Impact Award of £200 for attending the conference. Technicians are eligible for an Impact Award of £100 if they attend with a teacher from their school or college.



Programme

9.00		Registration, coffee and exhibition
9.45		Welcome and introductions
10.00		Effective Practical Work: What Does Research Have To Say? Professor Robin Millar Professor of Science Education, University of York
10.30		Engagement and Progression in Practical Science Chris Sunley Lead School Standards Adviser, Department for Children, Schools and Families
11.00		Coffee/tea and exhibition
11.30		Workshop Session 1
	1a	The Getting Practical Project
	1b	Technicians as Co-Educators
	1c	Practical Work Outside the Classroom
	1d	Assessing Pupil Progress (APP) through Practical Science
12.30		Lunch and exhibition
1.30		Using Exciting Demonstrations to Maximise Pupil Engagement Dr Bryson Gore OmniScience
2.00		Workshop Session 2
	2a	Improving Practical Work for All Learners
	2b	Surely That's Banned?
	2c	Innovative Uses of ICT in Practical Work
	2d	Innovative Approaches to How Science Works in Practical Work
3.00		Coffee/tea and exhibition
3.15		Plenary and next steps
3.45		End

Workshop information

Session 1 11.30 – 12.30

- 1a The Getting Practical Project**
Kirstie Hampson, Getting Practical Programme Manager: Professional Development, Association for Science Education
Leigh Hoath, PGCE Tutor, Bradford College
In this session you will explore the purpose and definition of practical work in science through activities designed to provoke discussion and debate. You will then apply these ideas to practical activities to make them a more effective way of developing understanding of scientific ideas, skills and enquiry.
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- 1b Technicians as Co-Educators**
Sharon Fry, HLTA Consultant, New Professionalism Team, Wakefield Local Authority
In this session you will explore how technicians can work most effectively with teachers to support student learning. This may be through carrying out demonstrations, working with small groups or even the whole class. You will also learn more about career progression for technicians to HLTA status.
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- 1c Practical Work Outside the Classroom**
Adrian Pickles, Head of Centre, Malham Tarn Field Centre, Field Studies Council
A session to share experience and provide inspiration for anyone who would like to develop their work with students as scientists beyond the classroom. Participants will need to be prepared to go outside and be scientific.
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- 1d Assessing Pupil Progress (APP) through Practical Science**
Lynn Henfield, National Strategies Regional Adviser, Science, Secondary National Strategy
Sarah Askey, Consultant and APP Pilot teacher, Trafford Local Authority
Practical science is embedded in How Science Works at Key Stage 3 and provides engaging and exciting routes to obtain evidence for periodic assessment. This workshop will provide you with strategies to assess pupil progress through effective Assessment for Learning, using new National Strategies material on pupil learning targets.
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Session 2 2.00 – 3.00

- 2a Improving Practical Work for All Learners**
Rachel Hartley, Stimulating Physics Teaching and Learning Coach, Institute of Physics
Many students find practical work a challenge: we've all had to deal with circuits that look like spaghetti and don't seem to work. So how do we ensure all our learners are engaged with practical work? This session will focus on strategies developed through the Stimulating Physics and Girls into Physics action research projects, which will help all students learn more effectively from their practical science.
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- 2b Surely That's Banned?**
Peter Borrows, Science Education Consultant, formerly Director of CLEAPSS
Despite the myths about banned experiments, in reality almost nothing is banned if there is an adequate risk assessment. This workshop will look at the model risk assessments on the CLEAPSS CD/web site and consider how they can be adapted for particular schools, to encourage good practical science and exciting demonstrations. It will also explore where to look for really novel practical ideas.
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- 2c Innovative Uses of ICT in Practical Work**
Richard Needham, e-CPD Champion, National Science Learning Centre
Heather Wain, Professional Development Leader, Science Learning Centre Yorkshire & the Humber
This is a workshop for you to try out a number of inexpensive new technologies such as video analysis, GPS and 'plug and go' sensors. We will also explore ways in which these tools can be used to enhance practical work and demonstrations in science.
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- 2d Innovative Approaches to How Science Works in Practical Work**
Kay Stephenson, Professional Development Lead, Gatsby Science Enhancement Programme
A hands-on opportunity to explore a range of practical activities and consider how they can be used to improve How Science Works skills and enhance learning about key concepts. Drawing on a range of resources you'll explore how today's world can be brought into the classroom, with examples including smart materials, alternative energy sources, light and matter, and recycling and sustainability.
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The conference is organised by the Yorkshire and the Humber Regional STEM Partnership, which consists of the Science Learning Centre Yorkshire & the Humber, the Association for Science Education, the Centre for Science Education at Sheffield Hallam University, STEMNET, and the local authorities of Barnsley, Bradford, Calderdale, Doncaster, East Yorkshire, Kingston upon Hull, Kirklees, Leeds, North Lincolnshire, North East Lincolnshire, North Yorkshire, Rotherham, Sheffield, Wakefield and the City of York.

The conference is supported by the Institute of Physics.

An exhibition of equipment, teaching resources and software from leading educational organisations, manufacturers and publishers will be available for browsing throughout the conference.