

Monday 4th July 2016 PROGRAMME FOR THE DAY

Time	Session				
09.00 – 09.45	Registration and refreshments & exhibition Learning Zone				
09.45 – 09.55	Welcome & Introduction – Julia Hoare, Worthing College Learning Zone				
09.55 – 10.45	Keynote Talk – Ali Orr <i>Professional recognition with the Science Council's registers - championing the role of technicians</i> Jean Scrase, Gatsby Charitable Foundation - information on the new <i>Technicians Make it Happen</i> campaign Learning Zone				
10.45 – 11.45 workshop one choices	Workshop 1a Engaging Plant Science – discuss prep, set up and try out practical tasks <i>Dr Carys Hughes, MSLC</i>	Workshop 1b Technicians Supporting GCSE Chemistry (New Specification) <i>Sue Cure, MSLC</i>	Workshop 1c Science Council Workshop on Professional Registration <i>Ali Orr, Science Council</i>	Workshop 1d Why Quality Matters, not all Glass is the same <i>Michelle Powner, SciLabWare</i>	Workshop 1e Beginners Electronics and Soldering <i>Physics Technician, Worthing College</i>
11.45 – 12.10	Tea & Coffee Learning Zone				
12.15 – 13.15 workshop two choices	Workshop 2a Engaging Plant Science – discuss prep, set up and try out practical tasks (repeat) <i>Dr Carys Hughes, MSLC</i>	Workshop 2b Technicians Supporting GCSE Chemistry (New Specification) <i>Sue Cure, MSLC</i>	Workshop 2c Putting the WOW back in Science <i>Sarah Marshall, Breckland Scientific</i>	Workshop 2d Lonza Electrophoresis <i>Lynn Thorne, SLS</i>	Workshop 2e Required practicals, A-level, GCSE and data-logging <i>Lee Graham, Data Harvest</i>
13.15 – 14.00	Lunch, refreshments & exhibition - with exhibitor prize draw Learning Zone				
14.05 – 15.05 workshop three choices	Workshop 3a Engaging Plant Science – discuss prep, set up and try out practical tasks (repeat) <i>Dr Carys Hughes, MSLC</i>	Workshop 3b Technicians – crucial members of the Science Department team <i>Sue Cure, MSLC</i>	Workshop 3c Why Quality Matters, not all Glass is the same <i>Michelle Powner, SciLabWare</i>	Workshop 3d Simple Physics Experiments using sensors <i>Steve Emery, IDS</i>	Workshop 3e <i>Workshop run by Timstar – details tbc (not Biology)</i>
15.10 – 15.30	Developing network opportunities and plenary (including feedback form) Julia Hoare, Worthing College Learning Zone				
CLOSE					

Workshop descriptions

Session One Choices (10.45 – 11.45)

- a) **Engaging Plant Science** – Led by Dr Carys Hughes, MSLC. These sessions will explore the SAPS resources for potometers, dissection, microscopy and photosynthesis. There will be opportunity to have a go at the practical tasks and discuss preparation and set up in the classroom. Suitable for KS3 – KS5.
- b) **Technicians Supporting GCSE Chemistry (new specifications)** – Led by Sue Cure, MSLC. This new hands-on session is designed to give science technicians increased familiarisation with apparatus typically used in school or college, and greater confidence in practical skills. The session will also explore strategies that technicians can use to support the new GCSE specification. Suitable for KS4.
- c) **Science Council Workshop on Professional Registration** – Led by Ali Orr, Science Council. This workshop follows on from the Keynote and will provide support and guidance for those interested in applying for professional registration. Examples of competence across a number of areas will be discussed and you will be helped to identify relevant examples from your own working life that can be used to support your application. Suitable for KS3 – KS5.
- d) **Why Quality Matters; not all Glass is the same** – Led by Michel Powner, SciLabWare. SciLabWare manufactures Pyrex and Quickfit. Hear about the history of these brands, their origins up to the current day. Discover the benefits of quality glassware; not all glassware is the same and see examples of different types. Understand why glass breaks and the safety measures to put in place. How to maximise the lifespan, maintenance and cleaning. Plastics; physical properties and chemical resistance will also be looked at. Suitable for KS3 – KS5.
- e) **Beginners Electronics and soldering** - led by Worthing College. Learn about and try out some of the basic key skills required on a make & take project that you can take back to school at the end of the session.

Session Two Choices (12.15 – 13.15)

- a) **Engaging Plant Science** – Led by Dr Carys Hughes, MSLC. These sessions will explore the SAPS resources for potometers, dissection, microscopy and photosynthesis. There will be opportunity to have a go at the practical tasks and discuss preparation and set up in the classroom. Suitable for KS3 – KS5.
- b) **Technicians Supporting GCSE Chemistry (new specifications)** - Led by Sue Cure, MSLC. This new hands-on session is designed to give science technicians increased familiarisation with apparatus typically used in school or college, and greater confidence in practical skills. The session will also explore strategies that technicians can use to support the new GCSE specification. Suitable for KS4.
- c) **Putting the WOW back in Science** - Led by Sarah Marshall, Breckland Scientific. Hands on fun experiments that are ideal for Science Week and Open Evenings. None of the experiments need any specific kit except a microscope, metre rules and Bunsen Burners, which all schools will have. The 'consumables' can be bought from anywhere. Suitable for KS3 and KS4.
- d) **Lonza Electrophoresis** – Led by Lynn Thorne, Scientific Laboratory Supplies. This workshop showcases the new Lonza 'Flash Gel' range for Electrophoresis that allows DNA separation to be carried out in 5 minutes with minimal setup time. No harmful stains, casting of gels or long separation times. This is very popular in university and research labs and is beginning to be used in some schools and colleges too. Use this workshop to find out more about this alternative method and try out the kit. Suitable for KS5.
- e) **Required practicals, A-level, GCSE and data-logging** – Led by Lee Grahame, Data Harvest. This hands-on session uses data-logging to help meet the new requirements for both A-Level, and GCSE from Sept 2016. The workshop uses the "Vision" touch-screen fully-graphical data-logger for a number of

experiments including light-gates and speed/acceleration; colorimeters and pH. Bring along a USB memory stick and you can take away a full set of teaching/learning resources meeting these requirements. If using an iPad, please download the “EasySense” App free from the App Store which can also be used to data-log. Please note that although this workshop uses Data Harvest products, you should be able to carry out the same or similar experiments with other branded Dataloggers. Suitable for KS3 – KS5.

Session Three Choices (14.05 – 15.05)

- a) **Engaging Plant Science** – Led by Dr Carys Hughes, MSLC. These sessions will explore the SAPS resources for potometers, dissection, microscopy and photosynthesis. There will be opportunity to have a go at the practical tasks and discuss preparation and set up in the classroom. Suitable for KS3 – KS5
- b) **Technicians – crucial members of the science department team** – Led by Sue Cure, MSLC. This session will focus on the importance of good teamwork within the Science Department and offer tips and strategies for getting the best from the technician team and other colleagues. This workshop is suitable for both technician team members and technicians who work alone. Discussion will be encouraged so that delegates can benefit from each other’s experiences. Suitable for KS3 – KS5.
- c) **Why Quality Matters; not all Glass is the same** – Led by Michel Powner, SciLabWare. SciLabWare manufactures Pyrex and Quickfit. Hear about the history of these brands, their origins up to the current day. Discover the benefits of quality glassware; not all glassware is the same and see examples of different types. Understand why glass breaks and the safety measures to put in place. How to maximise the lifespan, maintenance and cleaning. Plastics; physical properties and chemical resistance will also be looked at. Suitable for KS3 – KS5.
- d) **Simple Physics Experiments using sensors** – Led by Steve Emery, Instruments Direct. Try out simple experiments including ‘Using sensors to measure gravity’, ‘Simple forces using a Force sensor’, ‘Measuring sound waves using a sound sensor’. Please note that although this workshop uses Vernier sensors, you should be able to carry out the same or similar experiments with other branded sensors. Suitable for KS3 – KS5.
- e) **Workshop run by Timstar** – details TBC – not Biology based

Supplier and Organisation Exhibition includes: Breckland Scientific, CLEAPSS, Data Harvest, Scientific & Chemical, SciLabWare, Timstar, Gratnells, Scientific Lab Supplies, ASE, and Stimulating Physics Network

Cost: £75.00 per technician (maintained and independent schools and colleges) – includes lunch, refreshments and conference materials.

To book: Email mslc@soton.ac.uk or telephone 02380 598810 with name, job title, school info and any dietary or accessibility requirements.

This conference has been organised in partnership with Worthing College and the Mathematics and Science Learning Centre, Southampton. Mathematics and Science Learning Centre, Southampton Education School, Level 3 Building 29, Highfield Campus, University of Southampton, SO17 1BJ, Tel 02380 598810 Email mslc@soton.ac.uk Fax 02380 598811