

secondary (stem LEARNING



Science
LEARNING NETWORK

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Beyond the horizon

Giving the best careers advice

Teachers are a vital source of careers information, find out how to gain experience of careers outside of education.

Get in touch...

We would welcome your feedback on our new magazine: feedback@slcs.ac.uk



VISIT US:
nationalstemcentre.org.uk
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The National Science Learning Network is a joint initiative by the Department for Education and the Wellcome Trust.

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Welcome



Welcome to the first edition of the Secondary STEM Learning magazine.

STEM (science, technology, engineering and mathematics) education has never been more in the news or more crucial to young people's future options and careers. Hardly a day goes by without some mention of STEM subjects on the news, and we know that all young people need the best possible STEM education whether they are to

move into STEM-related careers, or simply be able to participate fully in an increasingly technological world.

As teachers of STEM subjects, the National Science Learning Network and National STEM Centre is here to help you inspire, excite and engage the young people with whom you work. This new magazine brings together lots of useful information, ideas and resources into one place to help make it easier for you to find the support you need. That may be identifying resources to help teach some of those 'tricky bits of STEM', highlighting professional development opportunities for you and your colleagues (and how Impact Awards and ENTHUSE bursaries can support you getting involved), providing some inspiration on how to bring STEM careers to life, or simply providing you with different perspectives on these exciting, dynamic areas which never stand still.

We do hope you like the new approach to letting you know about the support available. We would love to hear your feedback, especially ideas on how we can make it even more relevant and useful, and also areas you'd like to see covered in future editions. And if you'd like to contribute an article or idea – well, you only have to ask!!

Happy reading and our very best wishes for a successful 2015-16 school and college year.

Yvonne Baker

YVONNE BAKER, CHIEF EXECUTIVE
 NATIONAL SCIENCE LEARNING NETWORK AND NATIONAL STEM CENTRE

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Unlocking technicians' potential: bringing new expertise to the classroom

by **SIMON QUINNELL**

@Quinnell75

Technician Lead, National Science Learning Centre

Practical work is a vital part of engaging pupils in science education for the benefits it can bring to both teaching and learning. Technicians have a wealth of experience in practical science and yet they still remain in the background. Schools need to unlock technicians' full potential – but how?

Jump in

It may seem obvious – but getting technicians into the classroom can have a dramatic effect on learning. Introducing experiments and practical work led by technicians would make them more visible in schools and allow their skills to be showcased.

Get ship-shaped

A prep room should be the engine room of the science department. Creating a well-organised prep room is one of the most important steps the technical department can take. Spring-cleaning the prep room could reveal equipment that's been hiding on a shelf for years and additional space could be made by recycling or donating old or unwanted items. LabAid provides unwanted lab equipment to schools in developing countries across the world, something which could be worth considering.

Join the conversation

There is a vibrant technician community in the UK. Being part of this allows technicians to keep skills up-to-date and share their knowledge and expertise. School leaders should encourage technicians to join online forums and build relationships with local schools to enable technical staff to network.

School up

The science world is highly skilled and fast paced – it is essential to keep skills topped up with the latest developments. Lots of support is available, be that external courses or bespoke training delivered in school. Other opportunities include work shadowing schemes and swapping knowledge by setting up internal training sessions.

Technicians are an incredibly valuable resource in education. Utilising their expertise could boost practical skills for students across the UK – so what are we waiting for?

Start unlocking today:

- Senior technicians accredited co-Leaders in science (STACS): www.slcs.ac.uk/NY600
- Technicians' online community: www.stem.org.uk/ms/technicians-group
- Technicians supporting practical work in the classroom: www.slcs.ac.uk/RP600

PROJECT ENTHUSE

Project ENTHUSE offers ENTHUSE Award bursaries to all state funded schools and colleges in the UK to help teachers, technicians and support staff access STEM focussed professional development through the National Science Learning Centre.

Project ENTHUSE is a unique partnership of government, charities and employers that have come together to bring about inspired science teaching through the continuing professional development of teachers of science and technicians across the UK.

The ENTHUSE Partners are the Wellcome Trust, the Department for Education, BAE Systems, BP, Institution of Engineering and Technology, Institution of Mechanical Engineers, Rolls-Royce and Royal Society of Chemistry.

■ www.slcs.ac.uk/ms/enthuse

Join the celebration

A world-leading STEM education for all young people across the UK

2005 was a big year: Facebook launched in the UK, the first videos were uploaded to YouTube, the first iPod Shuffle was released, Tony Blair became the longest serving Labour Prime Minister, and Labour was re-elected for their third consecutive term. A young, previously little-known, MP, David Cameron, was elected head of the Conservative party. Crazy Frog dominated the pop charts, Batman Begins and Brokeback Mountain were released in cinemas. And, of course, the National Science Learning Centre ran its first course.

Funded by the Wellcome Trust, the National Science Learning Centre was built to provide transformative, residential professional development for teachers and technicians of science in UK schools to reach its vision of "a world-leading STEM education for all young people across the UK".

Since its launch, the National Science Learning Centre has supported over 20,000 teachers and technicians, reaching 84% of state funded secondary schools in the UK.

In 2008, Project ENTHUSE was launched to allow for greater access to professional development by providing bursaries for professional development activities open to all state funded schools and colleges. Now supporting all STEM subjects and working with partners in Northern Ireland, Scotland and Wales the National Science Learning Centre has

gone from strength to strength, and we are commemorating its anniversary with a range of events:

- ten great experiments from ten great years – 'experiment' along with us in November
- firing fireworks – live near York? Then all the family are invited to the anniversary of our first course on 1 November 2015
- the art of science – we're unveiling a new piece of art at the National Science Learning Centre
- a new website – bringing together the free resources in the National STEM Centre eLibrary with the range of professional development activities on the National Science Learning Network website

Useful links:

- Ten great experiments from ten great years: www.stem.org.uk/ms/ten-experiments
- Firing fireworks open day: www.slcs.ac.uk/ms/openday
- National Science Learning Network: www.slcs.ac.uk
- National STEM Centre: www.nationalstemcentre.org.uk
- Project ENTHUSE: www.stem.org.uk/ms/project-enthuse



James has been teaching design and technology across different specialisms for the last ten years. More recently, James has set up a project called Jambled&T and gave the keynote presentation of creativity at the International D&T Conference.

On the record

A conversation with JAMES BLEACH

Head of Design and Technology, Samuel Ward Academy

@jambledandt

So James, where do you see the future of design and technology?

I see big changes to the traditional way we have taught design and technology. Advances in technology are happening daily and in order for us to deliver a curriculum that is valued by others, in and out of industry, we as teachers must keep up with those changes. Skills and processes are an essential part of design and technology that must remain, however, the typical product as an outcome needs rethinking. We need to get pupils thinking about how to solve real life problems, whether it be with a product or a prototype as an outcome.



What's been the highlight of the year in your classroom?

There are highlights in the classroom and department daily but this year I have really enjoyed experimenting with CAD/CAM through laser cutting and 3D printing with staff and pupils.

And out?

I have really enjoyed developing as a keynote speaker at events such as the International D&T Conference and the Leeds D&T Teachers Conference.

What's your favourite project and why?

My favourite project at the moment is the Vinyl Record Amplifier, based on London designer, Paul Cockledge. Every time I teach the project, a pupil suggests a new direction that I hadn't thought of! I love the idea of upcycling and also using an old form of music to create a newer form.

What do you think are the biggest challenges for a design and technology teacher?

Keeping up with changes in technology and finding the time to experiment with new processes.

How would you describe your teaching environment?

'A work in progress'... it always will be, but I love the idea that everything within the environment is of some use to somebody!

What do you love most about design and technology?

Design and technology is my hobby and I get to explore, experiment and push boundaries daily with young minds that are not always fixated on what we as adults expect things to do or look like.



What piece of kit could you not do without?

I think that the knowledge of a good graphics CAD program is essential; this way you can create an inspiring environment. Once you get the minds of the pupils ticking, most tasks can achieve an outcome no matter what equipment you have.

■ To find out more about vinyl record amplifiers go to: www.stem.org.uk/ms/vinyl-amps

CPD activities James has helped develop:

- Unleashing creative design ideas from your students: www.slcs.ac.uk/TY215
- Using 3D printers creatively and effectively in the classroom: www.slcs.ac.uk/TY214

Inside the Swiss time machine: behind the scenes at CERN

by **ADAM LITTLE**
@SecretPhysicist

Professional Development Leader, National Science Learning Centre

Between snow-topped peaks, buried 175 metres under the earth, physicists and engineers are working to uncover the secrets of time and discover the building blocks of the universe. CERN, the European Organisation for Nuclear Research, is a Mecca for science

In a tunnel 27 kilometres long, sensors in the Large Hadron Collider (LHC) detected the Higgs boson, or God particle, which earned Professor Peter Higgs the Nobel Prize for Physics in 2013. Dormant for two years, the LHC has been sealed and is once again seeking out theoretical elements of the cosmos.

Just before it was closed to the public, however, I took a band of teachers for a once in a lifetime visit to the research facility that seems like it belongs in a James Bond film.

We began by meeting Welsh physicist, Lyn Evans, Director of the Linear Collider Collaboration. Many are now familiar with the LHC at CERN, but Lyn is already planning the next step: a new collider, which will study discoveries in detail by smashing particles into one another in different ways.

Then Dr Sparsh Navin, expert in the field, told us about her experiments exploring the future of cancer treatment via proton beam therapy using ALICE (A Large Ion Collider Experiment).

Finally, we walked through the CERN Control Centre, which acts as air traffic control for the minute particles as they journey through the network of complex devices, including the LHC and ALICE.

A trip like this opens your eyes. It showed me that it's not just physicists at the centre of CERN, but also engineers, computing specialists, mathematicians and more all working together. CERN shows how science, technology, engineering and maths can work together for a common goal.

“ I took a band of teachers for a once in a lifetime visit to the research facility that seems like it belongs in a James Bond film ”

AVAILABLE LEARNING RESOURCES

SEE THE WORLD

The CERN study trip is part of our Cutting Edge Science programme, and is possible thanks to funding and support from Research Councils UK. This innovative range of courses delivers the latest scientific research to teachers.

Find out about how you could engage with the latest scientific knowledge across hundreds of fields by visiting our website: www.slcs.ac.uk/rcuk

And don't miss out on the chance to visit some of the most interesting research facilities in the world! Book your place on one of our STEM study visits today.

EXPEDITION ICELAND

FEBRUARY 2016
Northern Lights, Engineering and Wonders of Iceland
■ www.slcs.ac.uk/RP463

CERN STUDY VISIT AND FOLLOW-UP CONFERENCE

A unique opportunity for UK science teachers to visit CERN and have its facilities, functions and operations explained by the scientists and engineers who work there.
■ www.slcs.ac.uk/NV200

Inset days: friend or foe?

by **CLAIRE ARBERY**
@mysci_ca

South West Regional Science Network Lead, National Science Learning Network

What do your inset days look like? Are they inspirational? Do they change the way you teach? We hear from one teaching school which has taken training to a new level.

Cabot Learning Federation is a partnership of schools, sponsored by Rolls-Royce and The University of the West of England. It leads 12 academies across Bristol, South Gloucestershire, Weston-super-Mare and Bath. The network of academies encompasses over 5,000 students between the ages of 3 and 19 and employs over 1,200 staff. This provides a huge challenge – how do you deliver training for thousands of your staff that really makes a difference?

Cabot Learning Federation became a teaching school in 2011 and put staff training at the heart of its ethos. At the end of the summer term, the Federation took an opportunity to design

a day of high-impact Continuing Professional Development. The day was structured as a formal conference and opened with new CEO, Steve Taylor's keynote speech, an exhibition hall was created that staff could explore and a wide range of workshops were provided. Everything was designed to promote excellence.

“ Taking the time to think outside of the box can turn the experience into an event the whole team looks forward to ”

Crucially this involved subject-specific training including: creativity in science; maths in science teaching; Earth and space; and making progress visible in science lessons. There was also a dedicated session for teaching assistants supporting science lessons.

The proof of the pudding is in the pudding – what did teachers think? “Fantastic resources and ideas to put into practice” said one. Another enthused that it had been “hands-on, inspiring and lots of fun!”

Training days needn't be lacklustre, or opportunities to clean out classrooms after a busy year. Taking the time to think outside of the box can turn the experience into an event the whole team looks forward to, which gives everyone something to think about.

If you are hosting an inset day the National Science Learning Network could help you deliver high-quality, subject-specific CPD. Get in touch and see if they can support you too.

For bespoke support visit:
www.slcs.ac.uk/ms/bespoke

Blasting off this December

by **TOM LYONS**
@space_tom

ESERO Teacher Fellow, ESERO-UK

In 1961 humankind defied gravity. Yuri Gagarin, a Russian cosmonaut, was blasted into the darkness of space aboard Vostok I. In 1969 Neil Armstrong stepped from Apollo 11's lunar module onto the face of the Moon. In 1991 the first Britain entered space - Helen Sharman flew aboard the Mir space station. Then in 1998 construction began on an audacious project: the International Space Station (ISS). Since the arrival of its first crew in 2000, the ISS has been continually operated by Earth's best and brightest.

This December Tim Peake will join this illustrious group and fly above the ISS. His long duration mission will see him living and working in low gravity for six months.



Tim has engaged the British public, and especially students, since his mission was first announced. Tim's mission name, Principia, was chosen from among thousands of public suggestions. After careful deliberation, Tim chose Principia to honour Isaac Newton's revolutionary text on physics, *Naturalis Principia Mathematica*.

Blue Peter helped Tim to launch a competition for children to design the patch for his mission to the ISS. The winning patch was designed by 13-year-old Troy Wood, and references the famous story about Newton 'discovering' gravity as he sat under an apple tree.

Tim will continue to involve students with his mission and communicate with Earth once he has arrived on the ISS. He will be undertaking experiments designed by students in Britain, tweeting his experiences and contacting a few lucky schools directly from the ISS via radio. This inspiring mission is a unique opportunity to excite students in human space exploration.

ESERO-UK, the UK Space Education Office, is offering support and resources around this mission to inspire pupils.
• Visit www.esero.org.uk/ms/timpeake for more information.

GET INVOLVED

ASTRO PI
UK students of all ages have designed a fantastic range of experiments for a specially designed Raspberry Pi called an Astro Pi! The Astro Pi computers will run the coding for these experiments aboard the International Space Station and will be sending data down to Earth for students to analyse.

MISSION X
This international project led by the UK Space Agency, NASA and ESA gives students the chance to train like a real life astronaut! Mission X participants learn about healthy eating and exercise, complete training modules, and get excited about the human space exploration.

ROCKET SCIENCE
The Royal Horticulture Society has teamed up with the UK Space Agency to create an educational opportunity that is really 'out of this world'! During Tim Peake's mission thousands of rocket seeds will be sent to the International Space Station, and will then be returned to Earth. Packets of these seeds will be distributed to schools across the UK to use in a mass experiment.

SPACE EDUCATION QUALITY MARK
For schools that have used space to enrich the curriculum. Bronze, Silver and Gold awards are available and the award is totally free to apply for.



Beyond the horizon: giving the best career advice

by **GEMMA TAYLOR**

@GTaylorSTEM

Technology CPD Lead, National Science Learning Centre

Since 2012 it has been a statutory duty of schools to provide careers education, information, advice and guidance. Teachers are a vital source of careers information, but they need the opportunity to build their knowledge of careers outside of education.

As a teacher I have always been grateful that I decided to go into teaching following a career in industry, not because it made me a better teacher, as the reality was I arrived in school several years older than my fresh faced colleagues whose new NQT days were long behind them. Rather, I found my former life an advantage when it came to bringing industrially relevant ideas and references into my classroom. Teaching is undoubtedly a perverse juggling act. With demonstrating progress and preparing for new specifications at the front of every teachers mind, is there time in the day to ensure that the curriculum reflects the world outside of school?

In the first few weeks into term, before marking truly kicks in, behaviour management techniques are still doing the trick and coursework is still embryonic, there's probably no better time to consider the role that teachers have in representing the real life projects and careers that your subject can lead to. However, with

“How do we ensure that our understanding of available careers is up to date?”

many teachers never having ever left the education system – primary to secondary, sixth form to university, PGCE to classroom, how do we ensure that our understanding of available careers is up to date? And even for those who have their own experience of industrial work before teaching, how do we secure a wider knowledge of careers, than just our own?

A 2014 report into students' opinions on careers information and guidance showed that teachers were seen as second only to parents, in giving all-important careers information and advice (Professional careers advisers source – *Careers Guidance; Guaranteed*, summary report of online survey, AoC January 2014). Whether we like it or not, teachers are a crucial part of the current careers education climate. The key question is, how can we provide real life guidance for our students without having to re-train and leave teaching?

“I found my former life an advantage when it came to bringing industrially relevant ideas and references into my classroom... But how do we secure a wider knowledge of careers, than just our own?”

There are a number of types of support to help teachers in this vital area without them having to undertake hours of research. For those who would like their students to meet real life STEM professionals, there are a number of opportunities available, including STEMNET's Ambassador Programme which provides STEM employees from a wide range of professions to deliver talks or workshops in your school. Alternatively your students could take part in longer term industry linked projects such as those run by EDT.

If you don't have the time or schedule to accommodate external opportunities, or would prefer to develop your own knowledge, why not have a look at the industry relevant resources available through the National STEM Centre or attend STEM careers focussed professional development. You could even get a bursary to support you spending time with an employer through the Teacher Industrial Partners' Scheme.

INFORM YOURSELF

Make use of the industry relevant resources available through the National STEM Centre:
www.stem.org.uk/ms/careers

Take part in a CPD experience like the Teacher Industrial Partners' Scheme (TIPS): www.slcs.ac.uk/ms/tips

Find out more about STEM careers through a short course near you:
www.slcs.ac.uk/RP226

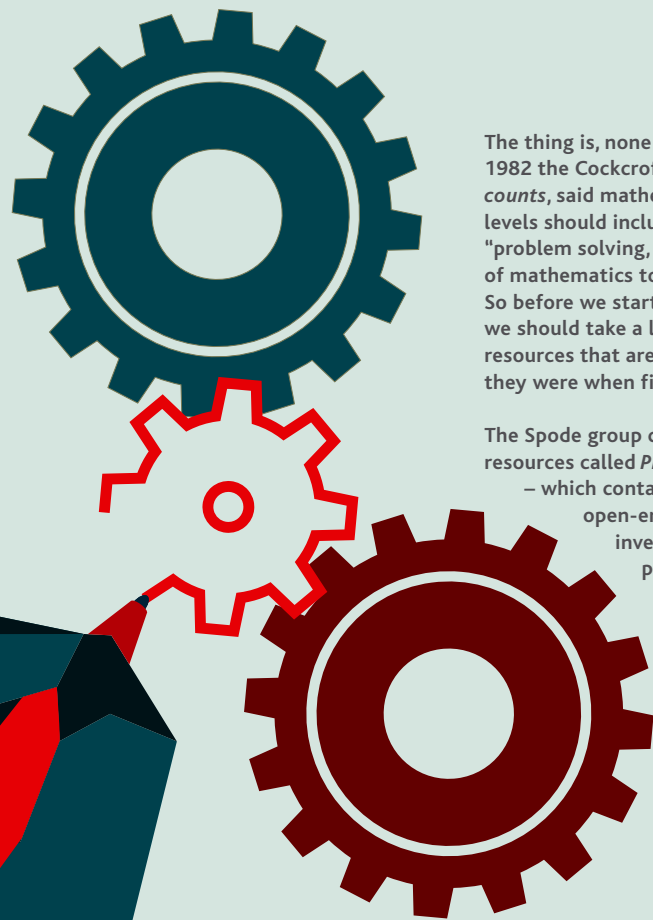
Invite visiting speakers into the classroom through STEMNET's STEM Ambassador programme:
www.stemnet.org.uk

Participate in industrially linked projects such as those run by EDT:
www.etrust.org.uk

What is the problem with problem solving?

by **STEVE LYON** > Mathematics Specialist, National STEM Centre
@SteveJLyon

Whenever a new curriculum is announced, there is always a rush to find new approaches and resources to help implement it. When the new mathematics curriculum was launched everyone seemed to be talking about problem solving: what is problem solving? How do we develop problem solving skills in our students? How do you assess problem solving skills? Where are the appropriate resources?



The thing is, none of this is new. Back in 1982 the Cockcroft report, *Mathematics counts*, said mathematics teaching at all levels should include opportunities for "problem solving, including the application of mathematics to everyday situations". So before we start re-inventing the wheel, we should take a look back at some classic resources that are just as useful today as they were when first written.

The Spode group created a great set of resources called *Problem solving tasks* – which contains a wide range of open-ended and practical tasks, investigations and real life problems. Created three decades ago they are still just as relevant for today's students.

Assessing problem solving skills presents another challenge, but once again help is already at hand. The Bowland Maths collection includes over 30 tasks designed to help assess students' achievements. Each task is supplied with sample solutions produced by students and an assessment guide showing how students could progress through each of the key processes.

But of course there is more to it than just having the right resources. We need to know how to use the tools we have. I can't recommend G. Pólya's *How to Solve it* highly enough. This perennial bestseller outlines a set of strategies for solving mathematical problems, and was first published in 1945.

So maybe the new mathematics curriculum is not so new after all...

LET US HELP YOU SOLVE THE PROBLEM >

Discover problem solving resources in the 'Mathematics: Problem Solving and Investigations' list on the National STEM Centre eLibrary.

- www.stem.org.uk/ms/problem-solving

Join us in York for our Using resources to develop problem solving skills in secondary mathematics course.

- www.slcs.ac.uk/MY203

Are you ready to level up?

by **DAVE GIBBS** > Computing and Technology Specialist, National STEM Centre
@adjibbs

33 years ago a beige box appeared in schools across the country which intended to revolutionise the classroom and prepare young people for a radically different world – the BBC Micro had arrived. Getting the BBC Micro into schools helped put the UK at the front of the home computing revolution. Acorn, the company behind its development, lives on through Cambridge-based global giant ARM.

Today, our children are growing up in a world where phones containing processors developed by ARM are hundreds of thousands of times faster than the original BBC Micro, have enough storage to hold over 500 hours of music, can access information, games and entertainment, and have video and sound recording built in. However, along the way we have lost something. We no longer know how these computers work; most people can use programs but have no idea how to create code that will do something new.

This autumn, 33 years on, the BBC is sending every 11 to 12-year-old a micro:bit as part of their Make it Digital campaign to inspire a new generation to get creative with coding, programming and digital technology.

Several times more powerful and many times lighter than the BBC Micro, this small device carries a great deal of hope. While it is not the only small programmable device available to schools, BBC Learning has designed this to be the easiest to use and inspire a new generation of coders and makers, leading them on to Raspberry Pi, Arduino and programming more broadly.

Powered by an ARM processor, the micro:bit offers exciting teaching opportunities

particularly across the STEM subjects. It has an on-board sensors which measures gravity and acceleration alongside a magnetometer: a digital compass that can measure and support interaction with any magnetic field, great for gesture-based input, games, physics experiments, sports science... the possibilities are almost endless.

The BBC worked with 29 partners for this aspirational project. Many created the device and the infrastructure behind it; Microsoft, Nordic Semiconductor, Technology Will Save Us, Lancaster University, Freescale and Samsung have all thrown their collective weight behind it. Their work is largely done, and it's time for other partners to step up.

Support and training for teachers is on its way and whilst computing and ICT teachers will no doubt be the key supporters in schools, there are opportunities to inspire and educate in any lesson. Look out for cross-curricular resources from the IET, CISCO, Kitronik, My Mini Factory, London CLC, Lancaster University and Code Kingdoms, and in the community-generated collections at CAS and the Python Foundation.

Working with the Wellcome Trust, the National STEM Centre will be central in supporting teachers using micro:bit in science and computing, with professional development opportunities and resources becoming available over the next few months.

Don't let your pupils get left behind – grab this opportunity and see what a difference you can make.

For more information, as well as free resources visit:
• www.stem.org.uk/bbc-microbit

WANT TO LEVEL UP? >

Practical ideas for using the BBC micro:bit in the classroom. Developed in partnership with the IET.

- BBC micro:bit in design and technology: www.slcs.ac.uk/TV200
- BBC micro:bit in science: www.slcs.ac.uk/TV201

Our top picks for you to put in the calendar...

EDITOR'S
TOP
PICK
CHOICE



SEPTEMBER 2015

SCIENCE GCSE ROADSHOW

From September to November this year, the GCSE Roadshow will be going all around England. These one day intensive events will allow participants to become more familiar with the new science GCSE courses and to consider effective ways of implementing this in school. All four awarding organisations will be available for participants to ask any queries they may have about the changes.

■ Please visit www.slcs.ac.uk/RP230 for more information and to find a venue near you

OCTOBER 2015

USING RESEARCH TO IMPROVE TEACHING AND LEARNING OF STEM SUBJECTS 28 OCTOBER

This two day conference will provide STEM educators an opportunity to debate, network and share effective practice on research engagement in schools. A combination of workshops and discussions take place, based around the papers submitted by academics and case studies provided by teacher participants.

■ For more information and how to apply www.slcs.ac.uk/NY259



NOVEMBER 2015

OPEN DAY FOR 10TH ANNIVERSARY 1 NOVEMBER

This year, the National Science Learning Centre in York will be celebrating ten years since the first course took place. To celebrate this, we're hosting an open day at the beginning of November. This event will be revolved around the chemistry of fireworks, involving a number of different bonfire night related activities for all the family to enjoy.

■ Keep a look out for more information about how to book a place: www.slcs.ac.uk



DECEMBER 2015

TIM PEAKE LAUNCH 15 DECEMBER

The first ever British European Space Agency (ESA) astronaut to go the International Space Station, Tim Peake, is due to launch on his

mission in December. Tim will be completing a number of different experiments while on-board the Space Station and a few lucky schools have been chosen to have contact with him during his mission via amateur radio.

■ For more information about Tim Peake and how your school can be involved, please visit: www.esero.org.uk/ms/timpeake

JANUARY 2016

ASE ANNUAL CONFERENCE 6 JANUARY

The Annual ASE Conference will be held in January 2016 at the University of Birmingham. Over 300 science education sessions will be available to visit, and we too are attending. We are planning on hosting a number of sessions and activities during this conference.

■ For more information about attending this event, please visit www.ase.org.uk/conferences/annual-conference



BETT SHOW 2016 20 JANUARY

The Bett Show will be taking place from 20-23 January 2016 in London. This leading learning technology event has been successfully running for over 30 years and we will be attending in 2016.

■ www.bettshow.com

The last few months have seen plenty happening. The National Science Learning Network, National STEM Centre and Project ENTHUSE continue to work tirelessly to support great STEM teaching and learning. Here is a brief round up of the latest news:



Amanda Phillips (left) stood with Yvonne Baker

Award win

The First Women Awards were established in 2005 to celebrate senior professional women. We were delighted when our Chief Executive, Yvonne Baker, won the 2015 First Women Award for Science and Technology at a glittering ceremony in London, hosted by the television presenter and journalist Clare Balding.

ENTHUSE celebrations

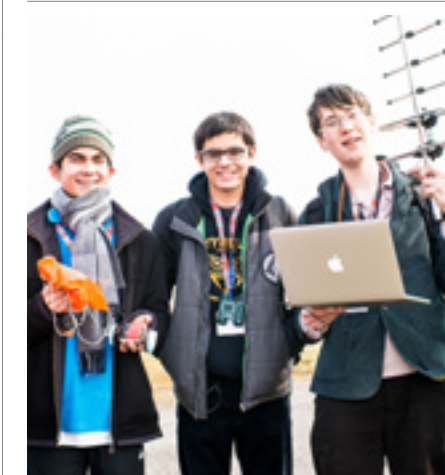
The 2015 ENTHUSE Celebration Awards were held this June at a prestigious ceremony at the Wellcome Trust in London. Now in its third year, the Awards were created to celebrate exceptional educators who have made a significant impact on science teaching in their schools. This year's winners were David Townsend, who won the ENTHUSE Leading Science Technician 2015 award and Jo Cox, who was awarded the Secondary Science Leader 2015. Could you be the next winner?

• www.slcs.ac.uk/ms/enthuse-celebration

Rolls-Royce Science Prize

The Rolls-Royce Science Prize is an annual awards programme that helps teachers implement science teaching ideas in their schools and colleges. This year's finalists are Rode Heath Primary School; Churchend Primary School; Lancaster Girls Grammar School; Gairloch High School; Bury St Edmunds County Upper School; Simon Langton Girls Grammar School; Bishop Challoner Catholic College; The Judd School; and The Brit School for the Performing Arts. They all took part in professional development activities through the National Science Learning Network. The winners will be announced in November.

• To find out more visit: www.slcs.ac.uk/ms/rollsroyce



UK team take home the trophy

CanSat, an annual competition run across Europe, challenges students to design a satellite that fits inside a drinks can. ESERO-UK runs the UK round of the competition and was delighted to see Team Impulse, winners of the 2015 UK CanSat competition, take the European round by storm.

• www.esero.org.uk/cansat

Let's take a peek at what people have been tweeting:

@NtlSTEMCentre
Followers: 13.9K

@ScienceVoice
Followers: 4524

@Ashwin_Ahuja Excited that our team (Cyclone) has been accepted into CanSat 2015-2016 @NtlSTEMCentre. Thanks! Let the work begin! #CanSat

@ProfRalphEarly Excellent information source which aids good understanding. Interesting for people of all ages. #STEMresources @NtlSTEMCentre ow.ly/PTold

@DrawingToolCo Fantastic day of #DT CPD planning @NtlSTEMCentre yesterday, really looking forward to delivering the finished result! #myDTholiday

@WTEducation @ScienceVoice will be helping BBC #microbit to support teachers to apply coding to real world science problems

@educationgovuk @ScienceVoice delivered 100k+ science CPD to 14,000+ teachers/technicians between Aug 2013 to Mar 2015 ow.ly/PlmG6 #TeachStem

@astro_timpeake
@SpacefundJo
@spacegovuk
@space_tom
@NtlSTEMCentre
Great to see guys – enjoy learning all about space, science & tech!

@MichaelConsidi6
In @ShareRadioUK studios is @yvonnebaker of @NtlSTEMCentre discussing the importance of #stem

Follow us @NtlSTEMCentre and @ScienceVoice and let us know what STEM related things you're up to!

Welcome to the STEM CPD listing

The National Science Learning Network is the largest UK provider of subject-specific Continuing Professional Development (CPD) for teachers, technicians and support staff working in STEM subjects covering computing, design and technology, mathematics and science.

The Network comprises of 50 Science Learning Partnerships (SLPs) in England, the National Science Learning Centre in York and partners SSERC, the Education Authority (NIEA) and Techniquet in Scotland, Northern Ireland and Wales.

The Network offers a diverse programme of research-led STEM CPD with proven impact on teacher development and student outcomes.

Our high quality CPD is also very affordable. Generous bursary funding from the Department for Education (DfE) and through Project ENTHUSE means all state funded schools, academies and colleges can benefit from Impact Award and ENTHUSE Award bursaries.

You can access our CPD online, face to face locally through SLPs and our partners and on longer residential activities at the National Science Learning Centre. We can also tailor our CPD to meet the individual needs of your department, school or network through our bespoke support.

Bursary support for all state schools and colleges funded schools

ENTHUSE Awards

ENTHUSE Awards contribute towards the costs of attending world-class professional development provided by the National Science Learning Centre.

ENTHUSE Awards are provided by Project ENTHUSE which is a unique partnership of government, charities and employers that have come together to bring about inspired STEM teaching through the professional development of teachers, technicians and support staff across the UK.

www.slcs.ac.uk/ms/enthuse-awards

Impact Awards

Impact Awards are equivalent to 50% of the CPD fee and are available for many of the CPD activities offered through the Science Learning Partnerships across England.

Impact Awards are provided by the Department for Education (DfE).

www.slcs.ac.uk/ms/impact-awards



All fees and award values are valid for state funded schools and are correct at the time of print (September 2015). See www.slcs.ac.uk for fees for non-state funded schools and the latest information.

COMPUTING

BBC MICRO:BIT IN SCIENCE

Practical ideas for using the BBC micro:bit in science lessons. Developed in partnership with the IET.

- See website for details and information
- www.slcs.ac.uk/TV201

RESIDENTIAL

DEVELOPING THE ROLE OF SECONDARY COMPUTING SUBJECT LEADERS

This course is designed for those who have recently become leaders of computing or computer science departments, or those looking to become one in the near future.

- 12 Jul 2015 York (residential)
- Activity fee: £1,102 (ex VAT)
- Bursary: £1,156 (ENTHUSE Award)
- www.slcs.ac.uk/TY216

GETTING STARTED WITH MOBILE TECHNOLOGY IN THE SECONDARY CLASSROOM

Learn how teaching with iPads in your classroom can improve pupil engagement and motivation. Activities include collecting and analysing data and pupil collaboration.

- 04 Nov 2015 York (residential)
- Activity fee: £551 (ex VAT)
- Bursary: £578 (ENTHUSE Award)
- www.slcs.ac.uk/TY700

SUPPORTING THE TEACHING OF A LEVEL COMPUTER SCIENCE

The step-up to A level computer science is significant – for students and teachers alike.

- 04 Nov 2015 York (residential)
- Activity fee: £551 (ex VAT)
- Bursary: £578 (ENTHUSE Award)
- www.slcs.ac.uk/TY217

SUPPORTING THE TEACHING OF GCSE COMPUTER SCIENCE

Develop your leadership of practical assessed tasks; to make effective use of out-of-school learning; and to gain experience of a range of tools that can be used in teaching.

- 23 Nov 2015 York (residential)
- Activity fee: £551 (ex VAT)
- Bursary: £578 (ENTHUSE Award)
- www.slcs.ac.uk/TY218

USING 3D PRINTERS CREATIVELY AND EFFECTIVELY IN THE CLASSROOM

3D printers are changing the world that we see around us. Find out how 3D printers can effectively be used to encourage creativity and

risk taking in the classroom.

- 26 Nov 2015 York (residential)
- Activity fee: £551 (ex VAT)
- Bursary: £578 (ENTHUSE Award)
- www.slcs.ac.uk/TY214

DESIGN AND TECHNOLOGY

BBC MICRO:BIT IN DESIGN AND TECHNOLOGY

Practical ideas for using the BBC micro:bit in design and technology lessons. Developed in partnership with the IET.

- See website for details and information
- www.slcs.ac.uk/TV200

RESIDENTIAL

CREATIVE WAYS TO HELP CLOSE THE GAP

Hands on ideas to encourage more creative design responses from students.

- 22 Oct 2015 York (residential)
- Activity Fee: £551 (ex VAT)
- Bursary: £578 (ENTHUSE Award)
- www.slcs.ac.uk/TY215

DESIGN AND TECHNOLOGY TECHNICIANS: CO-LEADERS IN THE DEPARTMENT

This course is for anyone who is responsible for running or aspiring to run their design and technology department's technical service.

- 16 Nov 2015 York (residential)
- Activity Fee: £852 (ex VAT)
- Bursary: £867 (ENTHUSE Award)
- www.slcs.ac.uk/NY619

E-TEXTILES: A BEGINNERS GUIDE TO PROGRAMMING IN THE TEXTILES CURRICULUM

Taking you from being an absolute beginner in e-textiles to having the confidence to do basic e-textiles programming in order to create more adventurous projects.

- 11 Dec 2015 York (residential)
- Activity Fee: £551 (ex VAT)
- Bursary: £578 (ENTHUSE Award)
- www.slcs.ac.uk/TY219

FROM GOOD TO OUTSTANDING: MAKING LEARNING VISIBLE

Moving from good to outstanding is not just about having a wide pedagogical approach, but how you engage all your pupils. This course investigates that shift.

- 11 Nov 2015 York (residential)
- Activity Fee: £1,623 (ex VAT)

- Bursary: £1,734 (ENTHUSE Award)
- www.slcs.ac.uk/NY714

GETTING STARTED WITH MOBILE TECHNOLOGY IN THE SECONDARY CLASSROOM

Learn how teaching with iPads in your classroom can improve pupil engagement and motivation. Activities include collecting and analysing data and pupil collaboration.

- 04 Nov 2015 York (residential)
- Activity Fee: £551 (ex VAT)
- Bursary: £578 (ENTHUSE Award)
- www.slcs.ac.uk/TY700

USING 3D PRINTERS CREATIVELY AND EFFECTIVELY IN THE CLASSROOM

3D printers is changing the world that we see around us. Find out how 3D printers can effectively be used to encourage creativity and risk taking in the classroom.

- 26 Nov 2015 York (residential)
- Activity Fee: £551 (ex VAT)
- Bursary: £578 (ENTHUSE Award)
- www.slcs.ac.uk/TY214

TEACHING FOOD SCIENCE CONTENT AT KS4: FOOD PREPARATION AND NUTRITION

Through practical experiments and classroom learning, you will learn how your school food curriculum can be adopted to include science experimentation and theory.

- 06 Nov 2015 York (residential)
- Activity Fee: £551 (ex VAT)
- Bursary: £578 (ENTHUSE Award)
- www.slcs.ac.uk/TY205

TEACHING LITERACY, MATHEMATICS AND SCIENCE IN DESIGN AND TECHNOLOGY

Supporting technology teachers in responding to the increased literacy, numeracy and scientific context in the new secondary curriculum.

- 19 Nov 2015 York (residential)
- Activity Fee: £801 (ex VAT)
- Bursary: £867 (ENTHUSE Award)
- www.slcs.ac.uk/TY201

TECHNICAL TEXTILES: USING SMART AND MODERN MATERIALS IN YOUR SECONDARY CLASSROOM

Learn how smart materials and wearables are changing the way that we use textiles and discover practical ideas for incorporating these new technical textiles into the classroom.

- 13 Nov 2015 York (residential)
- Activity Fee: £551 (ex VAT)
- Bursary: £578 (ENTHUSE Award)
- www.slcs.ac.uk/TY208

11 Feb 2016 Durham
03 Mar 2016 Sheffield
• Activity Fee: £215 (ex VAT)
• Bursary: £107.50 (Impact Award)
■ www.slcs.ac.uk/RP213

USING DIGITAL TECHNOLOGY TO SUPPORT SCIENCE LEARNING

This course explores a range of technology-based applications to develop understanding, communicate ideas and collect and analyse data.
• 09 Nov 2015 Bury St Edmunds
• Activity Fee: £215 (ex VAT)
• Bursary: £107.50 (Impact Award)
■ www.slcs.ac.uk/RP700

WORKING SCIENTIFICALLY

This course will allow you to explore the new ideas embedded in the curriculum around students working scientifically.
• 12 Oct 2015 Hounslow
• Activity Fee: £215 (ex VAT)
• Bursary: £107.50 (Impact Award)

• 21 Oct 2015 Liverpool
• Activity Fee: £115 (ex VAT)
• Bursary: £57.50 (Impact Award)
■ www.slcs.ac.uk/RP207



Bringing Cutting Edge Science into the Classroom

In partnership with Research Councils UK (RCUK); the Bringing Cutting Edge Science into the Classroom, is an innovative programme delivered with researchers.

Designed to deliver the latest cutting edge research, knowledge, new contexts and practical activities to support teachers in delivering the curriculum in an accessible, enjoyable and stimulating way for their students.

■ www.slcs.ac.uk/ms/rcuk

BRINGING CUTTING EDGE SCIENCE INTO THE CLASSROOM: LIFESTYLE AND HEALTH

This course focuses on the impact that lifestyle, physiology and genetics has on our size, quality and length of life.
• 21 Sept 2015 Nottingham
• Activity Fee: £210 (ex VAT)
• Bursary: £180 (RCUK)
■ www.slcs.ac.uk/RP458

BRINGING CUTTING EDGE SCIENCE INTO THE CLASSROOM: SUSTAINABLE SCIENCE

Update your subject knowledge about alternative technologies of developing a sustainable global future.
• Location: Various
• Activity Fee: £210 (ex VAT)
• Bursary: £180 (RCUK)
■ www.slcs.ac.uk/RP462

RESIDENTIAL

ASSESSMENT WITH NO LEVELS

Exploring strategies which will enable you to lead your colleagues in embedding Assessment for Learning (AfL) practices in science.
• 02 Nov 2015 York (residential)
• Activity Fee: £1,322 (ex VAT)
• Bursary: £1,445 (ENTHUSE Award)
■ www.slcs.ac.uk/NY703

BRING SCIENCE TO LIFE: CSI FORENSICS

Work with experienced crime scene officers and forensic scientists to develop skills and learning approaches using forensics as a contemporary, motivating context.
• 19 Nov 2015 York (residential)
• Activity Fee: £1,222 (ex VAT)
• Bursary: £1,036 (ENTHUSE Award)
■ www.slcs.ac.uk/NY203

DIFFERENTIATION: VISIBLE PROGRESSION FOR ALL

Supporting you in providing differentiation for all students and ensuring that they can demonstrate progress in learning.
• 07 Oct 2015 York (residential)
• Activity Fee: £897 (ex VAT)
• Bursary: £777 (ENTHUSE Award)
■ www.slcs.ac.uk/NY237

EFFECTIVE TRANSITION

This course will equip teachers to identify what would be helpful and work for their students, as well as experience different activities that may be useful in increasing support within science transition.
• 17 Nov 2015 York (residential)
• Activity Fee: £852 (ex VAT)
• Bursary: £867 (ENTHUSE Award)
■ www.slcs.ac.uk/NY249

FROM GOOD TO OUTSTANDING: MAKING LEARNING VISIBLE

Moving from good to outstanding is not just about having a wide pedagogical approach, but how you engage all your pupils. This course investigates that shift in role to facilitate truly pupil-centered classrooms by evaluating effective approaches.
• 11 Nov 2015 York (residential)
• Activity Fee: £1,623 (ex VAT)
• Bursary: £1,734 (ENTHUSE Award)
■ www.slcs.ac.uk/NY714

HEALTH AND SAFETY

Learn how to implement essential and effective health and safety planning with a pragmatic, risk based approach.
• 20 Oct 2015 York (residential)
• Activity Fee: £581 (ex VAT)
• Bursary: £518 (ENTHUSE Award)
■ www.slcs.ac.uk/NY253

LAB DESIGN: FUTURE SCIENCE ACCOMMODATION FOR TEACHING AND LEARNING

Well-planned, imaginative and practical science spaces in schools and colleges can create outstanding learning environments for both students and teachers.
• 15 Oct 2015 York (residential)
• Activity Fee: £816 (ex VAT)
• Bursary: £777 (ENTHUSE Award)
■ www.slcs.ac.uk/NY211

MATHEMATICS FOR SCIENTISTS

Would you like to know how to teach mathematical skills to your students so they can tackle issues across the three sciences?
• 14 Dec 2015 York (residential)
• Activity Fee: £1,102 (ex VAT)
• Bursary: £1,156 (ENTHUSE Award)
■ www.slcs.ac.uk/NY258

OUTSTANDING SCHEMES OF WORK

You will have opportunities to develop your schemes of work so they are fit for purpose, as part of outstanding teaching and learning in science.
• 07 Oct 2015 York (residential)
• Activity Fee: £1,222 (ex VAT)
• Bursary: £1,156 (ENTHUSE Award)
■ www.slcs.ac.uk/NY205

PRE-NQT KICK START PROGRAMME

Are you ready for your first science teaching post? Let us support your personal planning and help you develop your repertoire of effective practical science activities.
• 13 Nov 2015 York (residential)
• Activity Fee: £1,653 (ex VAT)
• Bursary: £1,734 (ENTHUSE Award)
■ www.slcs.ac.uk/NY245

PREPARING FOR NEW GCSE SKILLS

Are you keen to enhance and engage your students learning using practical work in a variety of contexts? This course will explore teaching and learning in science from a practical perspective.
• 25 Nov 2015 York (residential)
• Activity Fee: £1,102 (ex VAT)
• Bursary: £1,156 (ENTHUSE Award)
■ www.slcs.ac.uk/NY256

RESOURCING THE NEW SECONDARY SCIENCE CURRICULUM

Develop a great awareness of the National STEM Centre and resources available and become familiar with how to use the eLibrary to increase subject knowledge.
• 14 Oct 2015 York
09 Feb 2016 York
• Activity Fee: £40 (ex VAT)
■ www.slcs.ac.uk/NY239

SUPPORTING SCIENCE: TEACHING ASSISTANTS MAKING A DIFFERENCE

An essential course for teaching assistants supporting learning in science. Develop investigative skills, consider health and safety issues and explore learning strategies.
• 25 Feb 2016 York (residential)
• Activity Fee: £1,102 (ex VAT)
• Bursary: £1,156 (ENTHUSE Award)
■ www.slcs.ac.uk/NY702

SCIENCE: LEADERSHIP

ESSENTIAL SKILLS FOR NEW AND ASPIRING SCIENCE LEADERS

Working with an experienced science leader, you will develop your vision and leadership skills to enable you to lead an effective and vibrant science team.
• One day:
08 Oct 2015 Wimborne
09 Dec 2015 Liverpool
• Activity Fee: £215 (ex VAT)
• Bursary: £107.50 (Impact Award)

• Two day:
21 Oct 2015 Telford
• Activity Fee: £430 (ex VAT)
• Bursary: £215 (Impact Award)
■ www.slcs.ac.uk/RP206

RESIDENTIAL

LEADING EFFECTIVE PROFESSIONAL DEVELOPMENT IN SCIENCE

This course will help you to identify the principles, strategies and resources that can be used to develop a programme valued by colleagues and demonstrates impact in the science classroom.
• See website for details and information
■ www.slcs.ac.uk/RP204

AIMING FOR PROMOTION AND PREPARING FOR YOUR FIRST LEADERSHIP ROLE

Designed and timed for science teachers early on in their careers, looking to take on some responsibility at their first post-qualification career move.
• 09 Nov 2015 York (residential)
• Activity Fee: £897 (ex VAT)
• Bursary: £660 (ENTHUSE Award)
■ www.slcs.ac.uk/NY218

ESTABLISHED HEADS OF SCIENCE: STRATEGIC LEADERSHIP OF YOUR TEAM

If you want to develop your skills to meet the challenges of addressing the changes in expectations then this is the perfect course.
• 02 Dec 2015 York (residential)
• Activity Fee: £1,478 (ex VAT)
• Bursary: £1,685 (ENTHUSE Award)
■ www.slcs.ac.uk/NY257

NEW AND ASPIRING HEADS OF SCIENCE

You will explore strategies for teaching topics across the biology curriculum and develop an understanding of how practical work can be made more relevant and effective.
• 30 Sep 2015 York (residential)
• Activity Fee: £2,806 (ex VAT)
• Bursary: £3,033 (ENTHUSE)
■ www.slcs.ac.uk/NY200

SUPPORTING SENIOR LEADERS IN STRATEGIC DEVELOPMENT OF SCIENCE DEPARTMENTS

This course will provide members of SLT and line managers of science with the expertise and knowledge required to support a diverse and challenging area of the curriculum; science.
• 23 Nov 2015 York (residential)
• Activity Fee: £852 (ex VAT)
• Bursary: £867 (ENTHUSE Award)
■ www.slcs.ac.uk/NY241

SCIENCE: BIOLOGY

ACTIVE APPROACHES AT A LEVEL BIOLOGY

Providing opportunities to explore the acknowledged benefits of active, collaborative and 'minds-on' approaches to learning at advanced level.
• 03 Dec 2015 North Tyneside
18 Jan 2016 Manchester
• Activity Fee: £215 (ex VAT)
• Bursary: £107.50 (Impact Award)
■ www.slcs.ac.uk/RP506

BRINGING CUTTING EDGE SCIENCE INTO THE CLASSROOM: BIODIVERSITY

This course considers the nature and importance of biodiversity for all species.
• 09 Feb 2016 Broxbourne
12 Mar 2016 Winchester
• Activity Fee: £210 (ex VAT)
• Bursary: £180 (RCUK)
■ www.slcs.ac.uk/RP452

BRINGING CUTTING EDGE SCIENCE INTO THE CLASSROOM: FOOD SECURITY AND AGRICULTURE

Explore how science is working towards creating sustainable global food production.
Location: Various
• Activity Fee: £210 (ex VAT)
• Bursary: £180 (RCUK)
■ www.slcs.ac.uk/RP456

BRINGING CUTTING EDGE SCIENCE INTO THE CLASSROOM: GENETICS

Discover how humans performance in sport is linked to modern technologies and advances in science.
• Location: Various
• Activity Fee: £210 (ex VAT)
• Bursary: £180 (RCUK)
■ www.slcs.ac.uk/RP457

BRINGING CUTTING EDGE SCIENCE INTO THE CLASSROOM: PERFORMANCE IN SPORT

Develop an understanding of how genetics will play a central role in the lives of future generations.
• Location: Various
• Activity Fee: £210 (ex VAT)
• Bursary: £180 (RCUK)
■ www.slcs.ac.uk/RP459

CONTEMPORARY A LEVEL BIOLOGY

Discussing the wider implications and applications of biology and exploring some tools for teaching and learning will broaden and deepen your 'repertoire' of practical activities and teaching approaches.

- 26 Feb 2016 Kendal
- Activity Fee: £215 (ex VAT)
- Bursary: £107.50 (Impact Award)

■ www.slcs.ac.uk/RP509

DEVELOPING AND ASSESSING PRACTICAL COMPETENCES IN A LEVEL BIOLOGY

This course is designed to prepare teachers to make effective use of practical work in the new A level science curriculum.

- 09 Oct 2015 Keele
- 14 Oct 2015 Altrincham
- 04 Nov 2015 Southampton
- 11 Dec 2015 Keele
- Activity Fee: £215 (ex VAT)
- Bursary: £107.50 (Impact Award)

■ www.slcs.ac.uk/RP510

GETTING TO GRIPS WITH A LEVEL BIOLOGY

Supporting teachers in developing higher level thinking with their students through use of practical work, demonstrations and modelling activities.

- 09 Nov 2015 Durham
- 26 Jan 2016 Sheffield
- 04 Feb 2016 Keele
- Activity Fee: £430 (ex VAT)
- Bursary: £215 (Impact Award)

■ www.slcs.ac.uk/RP501

STRENGTHENING PRACTICAL WORK IN BIOLOGY

Explore strategies for teacher topics across the biology curriculum and how practical work can be made more effective.

- Location: Various
- Activity Fee: £215 (ex VAT)
- Bursary: £107.50 (Impact Award)

■ www.slcs.ac.uk/RP200

RESIDENTIAL

A LEVEL PRACTICAL ENDORSEMENT - BIOLOGY

Faced with the challenge of the new practical endorsement in biology A level? If you want ideas for new practical techniques, this is the course for you.

- 21 Oct 2015 York (residential)
- 07 Mar 2016 York (residential)
- Activity Fee: £551 (ex VAT)
- Bursary: £574 (ENTHUSE Award)

■ www.slcs.ac.uk/NY246

INSPIRING POST-16 BIOLOGY

New practical techniques, uses of ICT, active and context based learning strategies can help students find tricky subjects inspiring.

- 12 Jan 2016 York (residential)
- Activity Fee: £1,478 (ex VAT)
- Bursary: £1,295 (ENTHUSE Award)

■ www.slcs.ac.uk/NY501

NEW TO A LEVEL BIOLOGY

Through the development of new practical techniques, use of ICT activities and context based learning strategies, this course will provide a foundation for those with little experience of teaching A level biology.

- 12 Oct 2015 York (residential)
- Activity Fee: £1162 (ex VAT)
- Bursary: £1,348 (ENTHUSE Award)

■ www.slcs.ac.uk/NY250

POST-16 MOLECULAR BIOLOGY IN CONTEXT

This hands-on course will show you how to use a wide range of molecular biology and biotechnology techniques with your students.

- 14 Dec 2015 York (residential)
- Activity Fee: £897 (ex VAT)
- Bursary: £660 (ENTHUSE Award)

■ www.slcs.ac.uk/NY505

SCIENCE: CHEMISTRY

ACTIVE APPROACHES AT A LEVEL CHEMISTRY

Providing opportunities to explore the acknowledged benefits of active, collaborative and 'minds-on' approaches to learning at advanced level.

- 11 Mar 2016 Birmingham
- Activity Fee: £215 (ex VAT)
- Bursary: £107.50 (Impact Award)

■ www.slcs.ac.uk/RP504

DEVELOPING AND ASSESSING PRACTICAL COMPETENCES IN THE NEW A LEVEL CHEMISTRY COURSE

This course is designed to prepare teachers to make effective use of practical work in the new A level chemistry curriculum.

- 29 Sep 2015 East Grinstead
- 01 Oct 2015 Birmingham
- 07 Oct 2015 Keele
- 07 Oct 2015 Watford
- 21 Oct 2015 Milton Keynes
- 05 Nov 2015 Gillingham
- 11 Nov 2015 Liverpool
- 11 Nov 2015 Southampton
- 01 Dec 2015 Keele
- Activity Fee: £215 (ex VAT)
- Bursary: £107.50 (Impact Award)

■ www.slcs.ac.uk/RP512

GETTING TO GRIPS WITH A LEVEL CHEMISTRY

Improve confidence in subject knowledge and skills appropriate to post-16 chemistry through the exploration of key ideas common to all specifications.

- 14 Oct 2015 Scunthorpe
- 01 Dec 2015 Sheffield
- 19 Jan 2016 Birmingham
- 03 Mar 2016 Durham
- Activity Fee: £430 (ex VAT)
- Bursary: £215 (Impact Award)

■ www.slcs.ac.uk/RP502

MASTERCLASS FOR A LEVEL CHEMISTRY (CONTEMPORARY A LEVEL CHEMISTRY)

Confident teachers will deepen their repertoire of practical activities and teaching approaches with a key focus in the use of electronic technologies.

- Location: Various
- Activity Fee: £215 (ex VAT)
- Bursary: £107.50 (Impact Award)

■ www.slcs.ac.uk/RP508

STRENGTHENING PRACTICAL WORK IN CHEMISTRY

Through hands-on activities you will undertake new and established strategies and practical techniques to make students' learning more effective.

- Location: Various
- Activity Fee: £215 (ex VAT)
- Bursary: £107.50 (Impact Award)

■ www.slcs.ac.uk/RP202

BRINGING CUTTING EDGE SCIENCE INTO THE CLASSROOM: DRUG DISCOVERY AND DEVELOPMENT

By drawing on substantial expertise from researchers, this course provides you with the opportunity to explore the contemporary themes and cutting edge developments in cancer research and anti-cancer drugs.

- 03 Mar 2016 Hertford
- Activity Fee: £210 (ex VAT)
- Bursary: £180 (RCUK)

■ www.slcs.ac.uk/RP460

BRINGING CUTTING EDGE SCIENCE INTO THE CLASSROOM: NEW MATERIALS AND NANOTECHNOLOGY

From energy sources and carbon capture to cosmetic enhancements and medical breakthroughs these new technologies are providing creative scientific solutions, as well as raising new ethical concerns.

- 10 Nov 2015 Guildford
- Activity Fee: £210 (ex VAT)
- Bursary: £180 (RCUK)


■ www.slcs.ac.uk/RP460

DEVELOPING EXPERTISE IN TEACHING ACIDS AND BASES

This course provides hands-on opportunities for teachers to explore effective strategies for teaching acids and bases.

- 17 Dec 2015 Keele
- Activity Fee: £125 (ex VAT)
- Bursary: £62.50 (Impact Award)

■ www.slcs.ac.uk/RP262



Royal Society of Chemistry

The Royal Society of Chemistry has created a series of bursary funded CPD courses that help both specialist and non-specialist chemistry teachers improve their subject and pedagogical knowledge, and confidence. The courses cover a wide range of topics at secondary level and are suitable for teachers at all career stages.

We are pleased to be able to offer Royal Society of Chemistry member **10% off** most of our courses. See website for details.

■ Simply enter the code **RSC1510** when you apply: www.slcs.ac.uk/ms/rsc

DEVELOPING EXPERTISE IN TEACHING ANALYTICAL TECHNIQUES (PRE-16)

Develop techniques to understand the underlying properties of elements and compounds that enable us to separate and identify them.

- Location: Various
- Activity Fee: £125 (ex VAT)
- Bursary: £62.50 (Impact Award)

■ www.slcs.ac.uk/RP261

DEVELOPING EXPERTISE IN TEACHING ANALYTICAL TECHNIQUES (POST-16)

Focussing on the underlying properties of elements and compounds that enable them to be separated from a mixture and to identify them.

- 08 Feb 2016 Keele
- Activity Fee: £125 (ex VAT)
- Bursary: £62.50 (Impact Award)

■ www.slcs.ac.uk/RP266

DEVELOPING EXPERTISE IN TEACHING CARBON CHEMISTRY

Using molecular models, this course develops participants' understanding of simple carbon chemistry and makes links between the underlying chemistry and teaching and learning activities.

- 17 Feb 2016 Hertford
- Activity Fee: £125 (ex VAT)
- Bursary: £62.50 (Impact Award)

■ www.slcs.ac.uk/RP257

DEVELOPING EXPERTISE IN TEACHING DEVELOPING AND USING MODELS

The focus throughout this course is developing and understanding of how chemists use models to try and explain their observations.

- Location: Various
- Activity Fee: £125 (ex VAT)
- Bursary: £62.50 (Impact Award)

■ www.slcs.ac.uk/RP264

DEVELOPING EXPERTISE IN TEACHING ENERGY AND CHANGE

An introduction to the key chemical ideas needed to understand energy changes.

- 16 Feb 2016 Hertford
- Activity Fee: £125 (ex VAT)
- Bursary: £62.50 (Impact Award)

■ www.slcs.ac.uk/RP265

DEVELOPING EXPERTISE IN TEACHING EQUILIBRIA CHEMISTRY

This course focuses on understanding what happens during a chemical reaction on a macroscopic and microscopic level

- Location: Various
- Activity Fee: £125 (ex VAT)
- Bursary: £62.50 (Impact Award)

■ www.slcs.ac.uk/RP259

DEVELOPING EXPERTISE IN TEACHING MATERIALS CHEMISTRY

- Location: Various
- Activity Fee: £125 (ex VAT)
- Bursary: £62.50 (Impact Award)

■ www.slcs.ac.uk/RP260

DEVELOPING EXPERTISE IN TEACHING ORGANIC CHEMISTRY (POST-16)

This course is designed to introduce participants to the key chemical ideas needed to understand how organic mechanisms work.

- 01 Feb 2016 Keele
- Activity Fee: £125 (ex VAT)
- Bursary: £62.50 (Impact Award)

■ www.slcs.ac.uk/RP258

DEVELOPING EXPERTISE IN TEACHING QUANTITATIVE CHEMISTRY

This course will give you an opportunity to explore how to make calculations more approachable through a series of 'hands-on' opportunities.

- 05 Nov 2015 Keele
- 15 Feb 2016 Hertford
- Activity Fee: £125 (ex VAT)
- Bursary: £62.50 (Impact Award)

■ www.slcs.ac.uk/RP253

DEVELOPING EXPERTISE IN TEACHING RATES OF REACTION

This course focuses on developing an understanding of kinetic theory and rates through experimental work, with practical investigations forming the essential core of the face to face workshop.

- Location: Various
- Activity Fee: £125 (ex VAT)
- Bursary: £62.50 (Impact Award)

■ www.slcs.ac.uk/RP263

DEVELOPING EXPERTISE IN TEACHING REDOX CHEMISTRY

This course focuses on developing an understanding of redox in terms of electron transfer, using both practical and non-practical approaches to addressing this area of chemistry.

- 16 Oct 2015 Addlestone
- 17 Dec 2015 Keele
- Activity Fee: £125 (ex VAT)
- Bursary: £62.50 (Impact Award)

■ www.slcs.ac.uk/RP254

DEVELOPING EXPERTISE IN TEACHING STRUCTURE AND BONDING (PRE-16)

This course critically assesses models used to teach chemical bonding, to help participants address student misconceptions.

- 05 Nov 2015 Keele
- Activity Fee: £125 (ex VAT)
- Bursary: £62.50 (Impact Award)

■ www.slcs.ac.uk/RP255

DEVELOPING EXPERTISE IN TEACHING STRUCTURE AND BONDING (POST-16)

Support in teaching the topic of structures and bonding post-16 including opportunities to explore effective teaching strategies.

- 19 Oct 15 Guildford
- 25 Jan 16 Keele
- Activity Fee: £125 (ex VAT)
- Bursary: £62.50 (Impact Award)

■ www.slcs.ac.uk/RP256

MATHEMATICS

RESOURCING THE NEW SECONDARY MATHEMATICS CURRICULUM

Explore resources designed to support improved teaching of the new curriculum with hand-on activities.

- 12 Oct 2015 York
- 10 Feb 2016 York
- Activity Fee: £40 (ex VAT)

■ www.slcs.ac.uk/MY202

USING 'MANIPULATIVES' TO ENHANCE UNDERSTANDING IN THE KS3 MATHEMATICS

Manipulatives including counters, interlocking cubes, Cuisenaire rods, tiles and multi-base blocks have long been used to aid understanding in primary mathematics.

- 24 Nov 2015 York
- 09 Mar 2016 York
- Activity Fee: £40 (ex VAT)

■ www.slcs.ac.uk/MY204

USING RESOURCES TO DEVELOP PROBLEM SOLVING SKILLS IN SECONDARY MATHEMATICS

Develop pupils problem solving skills in your lessons with hand-on activities and resources.

- 30 Nov 2015 York
- 01 Mar 2016 York
- Activity Fee: £40 (ex VAT)

■ www.slcs.ac.uk/MY203

RESIDENTIAL

GETTING STARTED WITH MOBILE TECHNOLOGY IN THE SECONDARY CLASSROOM

Learn how teaching with iPads in your classroom can improve pupil engagement and motivation. Activities include collecting and analysing data and pupil collaboration.

- 04 Nov 2015 York (residential)
- Activity Fee: £551 (ex VAT)
- Bursary: £578 (ENTHUSE Award)

■ www.slcs.ac.uk/TY700

NEW AND ASPIRING LEADERS OF MATHEMATICS

Inspirational, intensive CPD for new and aspiring leaders of mathematics provides the skills required for outstanding learning and leading a mathematics department.

- 05 Nov 2015 York (residential)
- Activity Fee: £1,400 (ex VAT)
- Bursary: £1,000 (ENTHUSE Award)

■ www.slcs.ac.uk/MY200

USING 3D PRINTERS CREATIVELY AND EFFECTIVELY IN THE CLASSROOM

Find out how 3D printers can effectively be used to encourage creativity and risk taking in the classroom.

- 26 Nov 2015 York (residential)
- Activity Fee: £551 (ex VAT)
- Bursary: £578 (ENTHUSE Award)

■ www.slcs.ac.uk/TY214

SCIENCE: GENERAL

ASSESSMENT FOR LEARNING IN SCIENCE

Trial a range of strategies for gathering and using data, explore the research behind assessment for learning, and develop and test your own techniques in the classroom.

- 15 Oct 2015 Preston
- 02 Dec 2015 Altrincham
- 02 Feb 2016 Shrewsbury
- 26 Feb 2016 Oldham
- 15 Mar 2016 Lancaster
- 18 Mar 2016 Keele
- Activity Fee: £215 (ex VAT)
- Bursary: £107.50 (Impact Award)

■ www.slcs.ac.uk/RP203

BBC MICRO:BIT IN SCIENCE

Practical ideas for using the BBC micro:bit in science lessons. Developed in partnership with the IET.

- See website for details and information

■ www.slcs.ac.uk/TV201

BEHAVIOUR MANAGEMENT IN SCIENCE

This course will support teachers new to the profession in considering ways of managing the behaviour of their students so that a positive, effective learning environment can be sustained.

- 10 Dec 2015 Birmingham
- 09 Feb 2016 Cumbria
- Activity Fee: £215 (ex VAT)
- Bursary: £107.50 (Impact Award)

■ www.slcs.ac.uk/RP222

CAREERS IN STEM

Develop your understanding and support students in signposting career options.

- Location: Various
- Activity Fee: £215 (ex VAT)
- Bursary: £107.50 (Impact Award)

■ www.slcs.ac.uk/RP226

CERN STUDY VISIT AND FOLLOW-UP CONFERENCE

Engaging students with big stories of contemporary science is a characteristic of inspiring science teaching. This study visit is a unique opportunity for UK science teachers to visit CERN and have its facilities, functions and operation explained by the scientists and engineers who work at CERN.

- 07 Dec 2015 Switzerland (residential)
- 15 Feb 2016 Switzerland (residential)
- Activity Fee: £300 (ex VAT)
- Bursary: £1,200 (ENTHUSE Award)

■ www.slcs.ac.uk/NV200

DELIVERING THE LATEST SCIENCE CURRICULUM

Identify the key issues arising from the new curriculum and consider how to audit and adapt existing schemes of learning to accommodate the changes.

- 04 Dec 2015 Keele
- 22 Jan 2016 Altrincham
- 29 Jan 2016 Oldham
- 09 Mar 2016 Shrewsbury
- Activity Fee: £215 (ex VAT)
- Bursary: £107.50 (Impact Award)

■ www.slcs.ac.uk/RP223

DEVELOPING THINKING SKILLS IN SCIENCE

Explore and develop effective strategies, such as questioning techniques, for enhancing your students' ability to think more deeply about science, using critical and other higher level thinking skills.

- 16 Nov 2015 London
- Activity Fee: £215 (ex VAT)
- Bursary: £107.50 (Impact Award)

■ www.slcs.ac.uk/RP216

DEVELOPING TRANSFERABLE SKILLS THROUGH SCIENCE

Identify and develop the transferable skills students will need to operate effectively in their future workplaces and in society.

- Full day:
- 24 Nov 2015 Oldham
- Activity Fee: £215 (ex VAT)
- Bursary: £107.50 (Impact Award)

■ www.slcs.ac.uk/RP221

ENHANCING LITERACY SKILLS IN SCIENCE

Supporting participants in responding to the increased literacy demands in examinations and help to provide students with the skills to be effective, independent learners.

- 11 Nov 2015 Durham
- 20 Jan 2016 Sheffield
- 01 Mar 2016 Cumbria
- Activity Fee: £215 (ex VAT)
- Bursary: £107.50 (Impact Award)

■ www.slcs.ac.uk/RP212

ENHANCING NUMERACY SKILLS IN SCIENCE

This course will support you in exploring ways in which numeracy skills can be enhanced through science teaching.

- Full day:
- 22 Oct 2015 Sheffield
- 02 Nov 2015 Hounslow
- 08 Dec 2015 Durham
- 26 Feb 2016 Telford
- Activity Fee: £215 (ex VAT)
- Bursary: £107.50 (Impact Award)

- Half day:
- 03 Dec 2015 Whitstable
- Activity Fee: £115 (ex VAT)
- Bursary: £57.50 (Impact Award)

■ www.slcs.ac.uk/RP217

EXPEDITION ICELAND (NORTHERN LIGHTS, ENGINEERING AND WONDERS OF ICELAND)

This expedition has been designed to give participants the opportunity to experience an area of the natural world which has recently been at the centre of STEM relevant stories. From earthquakes to Mars training, Iceland is a destination that can bring STEM subjects to life in the classroom!

- 16 Feb 2016 Iceland (residential)
- Activity Fee: £985 (ex VAT)
- Bursary: £720 (RCUK)

■ www.slcs.ac.uk/RP463

IMPROVING SUBJECT KNOWLEDGE

Update and improve your subject knowledge and consider how best to support students in learning the subject.

- See website for details and information

■ www.slcs.ac.uk/RP224

INTRODUCING THE NEW SCIENCE GCSEs

An update of new GCSE and KS4 qualifications

- 06 Oct 2015 Porth
- 07 Oct 2015 Wimborne
- 08 Oct 2015 Reading
- 13 Oct 2015 Swindon
- 14 Oct 2015 Cheltenham
- 16 Oct 2015 Bristol
- 19 Oct 2015 Lancaster
- 19 Oct 2015 Abingdon
- 22 Oct 2015 Liverpool
- 04 Nov 2015 Crewe
- 06 Nov 2015 Carlisle
- 11 Nov 2015 Sheffield
- 11 Nov 2015 Cambridge
- 12 Nov 2015 Leeds
- 13 Nov 2015 Durham
- 13 Nov 2015 Hertford
- Activity Fee: £75 (ex VAT)
- Bursary: £37.50 (Impact Award)

- 18 Nov 2015 Birmingham
- Activity Fee: £215 (ex VAT)
- Bursary: £107.50 (Impact Award)

■ www.slcs.ac.uk/RP230

MATHEMATICS IN THE SCIENCE CLASSROOM

Exploring the use and failure to use mathematics in science. It looks at typical weaknesses in mathematics that hinder students' ability to understand and solve scientific problems.

- 24 Nov 2015 Gloucester
- 01 Dec 2015 Swindon
- 16 Jan 2016 Preston
- 09 Mar 2016 Swindon
- Activity Fee: £215 (ex VAT)
- Bursary: £107.50 (Impact Award)

■ www.slcs.ac.uk/RP210

PREPARING STUDENTS FOR LINEAR EXAMINATIONS

This course will support teachers in developing effective strategies for supporting students as they prepare for exams.

- 05 Oct 2015 Carlisle
- 07 Oct 2015 Workington
- 12 Nov 2015 North Tyneside
- 02 Mar 2016 Preston
- Activity Fee: £215 (ex VAT)
- Bursary: £107.50 (Impact Award)

■ www.slcs.ac.uk/RP211

RESPONDING TO STUDENTS' NEEDS IN SCIENCE

Develop strategies which personalise the science curriculum, in order to engage students of all abilities, widen engagement and participation, and increase progression to further science study.

- 30 Sep 2015 Gloucester
- 13 Nov 2015 Telford
- Activity Fee: £215 (ex VAT)
- Bursary: £107.50 (Impact Award)

■ www.slcs.ac.uk/RP220

SCIENCE ACROSS THE CURRICULUM

Explore the benefits of cross-curricular working to improve engagement and motivation.

- Location: Various
- Activity Fee: £215 (ex VAT)
- Bursary: £107.50 (Impact Award)

■ www.slcs.ac.uk/RP225

SUBJECT LEADERS' NETWORK

This network will consider what effective teaching and learning of the triple science extension modules could look like.

- 29 Sep 2015 Barrow-in-Furness
- 07 Oct 2015 Hull
- 14 Oct 2015 Wimborne
- 15 Oct 2015 Salisbury
- 13 Nov 2015 Cheltenham

- 17 Nov 2015 Ulverston
- 18 Nov 2015 Chippenham
- 08 Dec 2015 Oxford
- 09 Dec 2015 Swindon
- 16 Dec 2015 Scunthorpe
- 04 Jan 2016 Kendal
- 02 Feb 2016 Barrow-in-Furness
- 02 Mar 2016 Wimborne
- 22 Mar 2016 Barrow-in-Furness

- See website for details and information

■ www.slcs.ac.uk/RP219

TEACHING ASSISTANTS SUPPORTING SCIENCE - TRAIN THE TRAINER

Science is special! This course gives teaching assistants the chance to explore this, and plan how they can support most effectively.

- 20 Oct 2015 Southampton
- Activity Fee: £215 (ex VAT)
- Bursary: £107.50 (Impact Award)

- 26 Nov 2015 Shrewsbury
- Activity Fee: £185 (ex VAT)
- Bursary: £92.50 (Impact Award)

■ www.slcs.ac.uk/RP228

TOWARDS OUTSTANDING

Secure knowledge of what outstanding practice looks like strengthens the ability to support colleagues, for the benefit of themselves and their students.

- 19 Oct 2015 Telford
- Activity Fee: £645 (ex VAT)
- Bursary: £322.50 (Impact Award)

- 03 Nov 2015 Kendal
- 17 Nov 2015 Liverpool
- Activity Fee: £215 (ex VAT)
- Bursary: £107.50 (Impact Award)

■ www.slcs.ac.uk/RP215

TOWARDS OUTSTANDING SCIENCE TEACHING

Develop your skills and expertise to teach consistently excellent science lessons and learn what constitutes high quality classroom practice and strategies to implement in your own school.

- 28 Sep 15 Gloucester
- Activity Fee: £900 (ex VAT)
- Bursary: £450 (Impact Award)

■ www.slcs.ac.uk/RP838

TRACKING AND IMPROVING PROGRESS IN SCIENCE

In response to demand from schools, this course is for teachers wishing to improve their students' progress and attainment in science.

- 16 Oct 2015 Barrow-in-Furness
- 19 Oct 2015 Surbiton
- 11 Nov 2015 Milton Keynes
- 12 Nov 2015 Swindon
- 26 Nov 2015 Preston
- 09 Feb 2016 Keele

CONTEMPORARY A LEVEL BIOLOGY

Discussing the wider implications and applications of biology and exploring some tools for teaching and learning will broaden and deepen your 'repertoire' of practical activities and teaching approaches.

- 26 Feb 2016 Kendal
- Activity Fee: £215 (ex VAT)
- Bursary: £107.50 (Impact Award)

■ www.slcs.ac.uk/RP509

DEVELOPING AND ASSESSING PRACTICAL COMPETENCES IN A LEVEL BIOLOGY

This course is designed to prepare teachers to make effective use of practical work in the new A level science curriculum.

- 09 Oct 2015 Keele
- 14 Oct 2015 Altrincham
- 04 Nov 2015 Southampton
- 11 Dec 2015 Keele
- Activity Fee: £215 (ex VAT)
- Bursary: £107.50 (Impact Award)

■ www.slcs.ac.uk/RP510

GETTING TO GRIPS WITH A LEVEL BIOLOGY

Supporting teachers in developing higher level thinking with their students through use of practical work, demonstrations and modelling activities.

- 09 Nov 2015 Durham
- 26 Jan 2016 Sheffield
- 04 Feb 2016 Keele
- Activity Fee: £430 (ex VAT)
- Bursary: £215 (Impact Award)

■ www.slcs.ac.uk/RP501

STRENGTHENING PRACTICAL WORK IN BIOLOGY

Explore strategies for teacher topics across the biology curriculum and how practical work can be made more effective.

- Location: Various
- Activity Fee: £215 (ex VAT)
- Bursary: £107.50 (Impact Award)

■ www.slcs.ac.uk/RP200

RESIDENTIAL

A LEVEL PRACTICAL ENDORSEMENT - BIOLOGY

Faced with the challenge of the new practical endorsement in biology A level? If you want ideas for new practical techniques, this is the course for you.

- 21 Oct 2015 York (residential)
- 07 Mar 2016 York (residential)
- Activity Fee: £551 (ex VAT)
- Bursary: £574 (ENTHUSE Award)

■ www.slcs.ac.uk/NY246

INSPIRING POST-16 BIOLOGY

New practical techniques, uses of ICT, active and context based learning strategies can help students find tricky subjects inspiring.

- 12 Jan 2016 York (residential)
- Activity Fee: £1,478 (ex VAT)
- Bursary: £1,295 (ENTHUSE Award)

■ www.slcs.ac.uk/NY501

NEW TO A LEVEL BIOLOGY

Through the development of new practical techniques, use of ICT activities and context based learning strategies, this course will provide a foundation for those with little experience of teaching A level biology.

- 12 Oct 2015 York (residential)
- Activity Fee: £1162 (ex VAT)
- Bursary: £1,348 (ENTHUSE Award)

■ www.slcs.ac.uk/NY250

POST-16 MOLECULAR BIOLOGY IN CONTEXT

This hands-on course will show you how to use a wide range of molecular biology and biotechnology techniques with your students.

- 14 Dec 2015 York (residential)
- Activity Fee: £897 (ex VAT)
- Bursary: £660 (ENTHUSE Award)

■ www.slcs.ac.uk/NY505

SCIENCE: CHEMISTRY

ACTIVE APPROACHES AT A LEVEL CHEMISTRY

Providing opportunities to explore the acknowledged benefits of active, collaborative and 'minds-on' approaches to learning at advanced level.

- 11 Mar 2016 Birmingham
- Activity Fee: £215 (ex VAT)
- Bursary: £107.50 (Impact Award)

■ www.slcs.ac.uk/RP504

DEVELOPING AND ASSESSING PRACTICAL COMPETENCES IN THE NEW A LEVEL CHEMISTRY COURSE

This course is designed to prepare teachers to make effective use of practical work in the new A level chemistry curriculum.

- 29 Sep 2015 East Grinstead
- 01 Oct 2015 Birmingham
- 07 Oct 2015 Keele
- 07 Oct 2015 Watford
- 21 Oct 2015 Milton Keynes
- 05 Nov 2015 Gillingham
- 11 Nov 2015 Liverpool
- 11 Nov 2015 Southampton
- 01 Dec 2015 Keele
- Activity Fee: £215 (ex VAT)
- Bursary: £107.50 (Impact Award)

■ www.slcs.ac.uk/RP512

GETTING TO GRIPS WITH A LEVEL CHEMISTRY

Improve confidence in subject knowledge and skills appropriate to post-16 chemistry through the exploration of key ideas common to all specifications.

- 14 Oct 2015 Scunthorpe
- 01 Dec 2015 Sheffield
- 19 Jan 2016 Birmingham
- 03 Mar 2016 Durham
- Activity Fee: £430 (ex VAT)
- Bursary: £215 (Impact Award)

■ www.slcs.ac.uk/RP502

MASTERCLASS FOR A LEVEL CHEMISTRY (CONTEMPORARY A LEVEL CHEMISTRY)

Confident teachers will deepen their repertoire of practical activities and teaching approaches with a key focus in the use of electronic technologies.

- Location: Various
- Activity Fee: £215 (ex VAT)
- Bursary: £107.50 (Impact Award)

■ www.slcs.ac.uk/RP508

STRENGTHENING PRACTICAL WORK IN CHEMISTRY

Through hands-on activities you will undertake new and established strategies and practical techniques to make students' learning more effective.

- Location: Various
- Activity Fee: £215 (ex VAT)
- Bursary: £107.50 (Impact Award)

■ www.slcs.ac.uk/RP202

BRINGING CUTTING EDGE SCIENCE INTO THE CLASSROOM: DRUG DISCOVERY AND DEVELOPMENT

By drawing on substantial expertise from researchers, this course provides you with the opportunity to explore the contemporary themes and cutting edge developments in cancer research and anti-cancer drugs.

- 03 Mar 2016 Hertford
- Activity Fee: £210 (ex VAT)
- Bursary: £180 (RCUK)

■ www.slcs.ac.uk/RP460

BRINGING CUTTING EDGE SCIENCE INTO THE CLASSROOM: NEW MATERIALS AND NANOTECHNOLOGY

From energy sources and carbon capture to cosmetic enhancements and medical breakthroughs these new technologies are providing creative scientific solutions, as well as raising new ethical concerns.

- 10 Nov 2015 Guildford
- Activity Fee: £210 (ex VAT)
- Bursary: £180 (RCUK)


■ www.slcs.ac.uk/RP460

DEVELOPING EXPERTISE IN TEACHING ACIDS AND BASES

This course provides hands-on opportunities for teachers to explore effective strategies for teaching acids and bases.

- 17 Dec 2015 Keele
- Activity Fee: £125 (ex VAT)
- Bursary: £62.50 (Impact Award)

■ www.slcs.ac.uk/RP262



Royal Society of Chemistry

The Royal Society of Chemistry has created a series of bursary funded CPD courses that help both specialist and non-specialist chemistry teachers improve their subject and pedagogical knowledge, and confidence. The courses cover a wide range of topics at secondary level and are suitable for teachers at all career stages.

We are pleased to be able to offer Royal Society of Chemistry member **10% off** most of our courses. See website for details.

■ **Simply enter the code RSC1510** when you apply: www.slcs.ac.uk/ms/rsc

DEVELOPING EXPERTISE IN TEACHING ANALYTICAL TECHNIQUES (PRE-16)

Develop techniques to understand the underlying properties of elements and compounds that enable us to separate and identify them.

- Location: Various
- Activity Fee: £125 (ex VAT)
- Bursary: £62.50 (Impact Award)

■ www.slcs.ac.uk/RP261

DEVELOPING EXPERTISE IN TEACHING ANALYTICAL TECHNIQUES (POST-16)

Focussing on the underlying properties of elements and compounds that enable them to be separated from a mixture and to identify them.

- 08 Feb 2016 Keele
- Activity Fee: £125 (ex VAT)
- Bursary: £62.50 (Impact Award)

■ www.slcs.ac.uk/RP266

DEVELOPING EXPERTISE IN TEACHING CARBON CHEMISTRY

Using molecular models, this course develops participants' understanding of simple carbon chemistry and makes links between the underlying chemistry and teaching and learning activities.

- 17 Feb 2016 Hertford
- Activity Fee: £125 (ex VAT)
- Bursary: £62.50 (Impact Award)

■ www.slcs.ac.uk/RP257

DEVELOPING EXPERTISE IN TEACHING DEVELOPING AND USING MODELS

The focus throughout this course is developing and understanding of how chemists use models to try and explain their observations.

- Location: Various
- Activity Fee: £125 (ex VAT)
- Bursary: £62.50 (Impact Award)

■ www.slcs.ac.uk/RP264

DEVELOPING EXPERTISE IN TEACHING ENERGY AND CHANGE

An introduction to the key chemical ideas needed to understand energy changes.

- 16 Feb 2016 Hertford
- Activity Fee: £125 (ex VAT)
- Bursary: £62.50 (Impact Award)

■ www.slcs.ac.uk/RP265

DEVELOPING EXPERTISE IN TEACHING EQUILIBRIA CHEMISTRY

This course focuses on understanding what happens during a chemical reaction on a macroscopic and microscopic level

- Location: Various
- Activity Fee: £125 (ex VAT)
- Bursary: £62.50 (Impact Award)

■ www.slcs.ac.uk/RP259

DEVELOPING EXPERTISE IN TEACHING MATERIALS CHEMISTRY

- Location: Various
- Activity Fee: £125 (ex VAT)
- Bursary: £62.50 (Impact Award)

■ www.slcs.ac.uk/RP260

DEVELOPING EXPERTISE IN TEACHING ORGANIC CHEMISTRY (POST-16)

This course is designed to introduce participants to the key chemical ideas needed to understand how organic mechanisms work.

- 01 Feb 2016 Keele
- Activity Fee: £125 (ex VAT)
- Bursary: £62.50 (Impact Award)

■ www.slcs.ac.uk/RP258

DEVELOPING EXPERTISE IN TEACHING QUANTITATIVE CHEMISTRY

This course will give you an opportunity to explore how to make calculations more approachable through a series of 'hands-on' opportunities.

- 05 Nov 2015 Keele
- 15 Feb 2016 Hertford
- Activity Fee: £125 (ex VAT)
- Bursary: £62.50 (Impact Award)

■ www.slcs.ac.uk/RP253

DEVELOPING EXPERTISE IN TEACHING RATES OF REACTION

This course focuses on developing an understanding of kinetic theory and rates through experimental work, with practical investigations forming the essential core of the face to face workshop.

- Location: Various
- Activity Fee: £125 (ex VAT)
- Bursary: £62.50 (Impact Award)

■ www.slcs.ac.uk/RP263

DEVELOPING EXPERTISE IN TEACHING REDOX CHEMISTRY

This course focuses on developing an understanding of redox in terms of electron transfer, using both practical and non-practical approaches to addressing this area of chemistry.

- 16 Oct 2015 Addlestone
- 17 Dec 2015 Keele
- Activity Fee: £125 (ex VAT)
- Bursary: £62.50 (Impact Award)

■ www.slcs.ac.uk/RP254

DEVELOPING EXPERTISE IN TEACHING STRUCTURE AND BONDING (PRE-16)

This course critically assesses models used to teach chemical bonding, to help participants address student misconceptions.

- 05 Nov 2015 Keele
- Activity Fee: £125 (ex VAT)
- Bursary: £62.50 (Impact Award)

■ www.slcs.ac.uk/RP255

DEVELOPING EXPERTISE IN TEACHING STRUCTURE AND BONDING (POST-16)

Support in teaching the topic of structures and bonding post-16 including opportunities to explore effective teaching strategies.

- 19 Oct 15 Guildford
- 25 Jan 16 Keele
- Activity Fee: £125 (ex VAT)
- Bursary: £62.50 (Impact Award)

■ www.slcs.ac.uk/RP256

INSPIRING CREATIVE CHEMISTRY TEACHERS DEVELOPING EXPERTISE IN PEDAGOGICAL APPROACHES TO CHEMISTRY

Participants are introduced to active learning and teaching strategies, and consider the progression of key ideas in chemistry.

- 24 Nov 15 Kendal
- Activity Fee: £125 (ex VAT)
- Bursary: £62.50 (Impact Award)

■ www.slcs.ac.uk/RP250

INSPIRING CREATIVE CHEMISTRY TEACHERS DEVELOPING EXPERTISE IN PRACTICAL CHEMISTRY FOR NQT’S

This course is designed to help participants to develop their own practical skills and understanding of how to teach practical chemistry to secondary aged students.

- 15 Oct 15 Billericay
- Activity Fee: £115 (ex VAT)
- Bursary: £57.50 (Impact Award)

■ www.slcs.ac.uk/RP251

RESIDENTIAL

CHEMISTRY FOR NON-SPECIALISTS

This course is designed to provide teachers with the confidence, flair and enthusiasm to teach chemistry at KS3 and KS4.

- 19 Oct 2015 York (residential)
- 18 Jan 2016 York (residential)
- Activity Fee: £1,212 (ex VAT)
- Bursary: £1,685 (ENTHUSE Award)

■ www.slcs.ac.uk/NY243

A LEVEL PRACTICAL ENDORSEMENT: CHEMISTRY

Experience and develop chemistry activities to meet the new assessment regimes, working alongside examiners, teachers and technicians, to help your school or college implement the new changes.

- 30 Sep 15 York (residential)
- 07 Mar 16 York (residential)
- Activity Fee: £551 (ex VAT)
- Bursary: £574 (ENTHUSE Award)

■ www.slcs.ac.uk/NY247

INSPIRING A LEVEL CHEMISTRY

This course provides many opportunities to be reconnected with the frontiers of chemistry and the teaching of it by engaging in a wide variety of stimulating sessions.

- 09 Mar 16 York (residential)
- Activity Fee: £1,162 (ex VAT)
- Bursary: £1,036 (ENTHUSE Award)

■ www.slcs.ac.uk/NY500

NEW TO A LEVEL CHEMISTRY

With much of chemistry centred around good experimental skills, this course you to develop, lead and support outstanding practical chemistry, linking it to effective pedagogy within the subject.

- 30 Nov 15 York (residential)
- Activity Fee: £1,162 (ex VAT)
- Bursary: £1,348 (ENTHUSE Award)

■ www.slcs.ac.uk/NY251

SCIENCE: PHYSICS

ACTIVE APPROACHES AT A LEVEL PHYSICS

Explore the acknowledged benefits of active, collaborative and ‘minds-on’ approaches to learning at advanced level.

- 01 Oct 2015 Canterbury
- 10 Dec 2015 Newcastle
- 21 Jan 2016 Birmingham
- 07 Mar 2016 Keele
- Activity Fee: £215 (ex VAT)
- Bursary: £107.50 (Impact Award)

■ www.slcs.ac.uk/RP505

CONTEMPORARY A LEVEL PHYSICS

This course will provide opportunities to explore the acknowledged benefits of active, collaborative and ‘minds-on’ approaches to learning at advanced level.

- 18 Jan 2016 Kendal
- Activity Fee: £215 (ex VAT)
- Bursary: £107.50 (Impact Award)

■ www.slcs.ac.uk/RP507

DEVELOPING AND ASSESSING PRACTICAL COMPETENCES A LEVEL PHYSICS

Designed to prepare teachers to make effective use of practical work in the new A level physics curriculum and use them to improve outcomes for students.

- 06 Oct 2015 Watford
- 13 Oct 2015 Keele
- 02 Nov 2015 Tonbridge
- 18 Nov 2015 Southampton
- 08 Dec 2015 Keele
- Activity Fee: £215 (ex VAT)
- Bursary: £107.50 (Impact Award)

■ www.slcs.ac.uk/RP511

GETTING TO GRIPS WITH A LEVEL PHYSICS

The course will develop subject knowledge, confidence and skills primarily through the exploration of key demonstrations and practicals common to all specifications.

- One day:
 - 13 Oct 2015 Birmingham
 - Activity Fee: £215 (ex VAT)
 - Bursary: £107.50 (Impact Award)

- Two day:
 - 10 Nov 2015 Durham
 - 19 Nov 2015 Birmingham
 - 10 Feb 2016 Keele
 - Activity Fee: £430 (ex VAT)
 - Bursary: £215 (Impact Award)

■ www.slcs.ac.uk/RP503

PHYSICS FOR NON-SPECIALISTS

Develop your understanding of key physics principles and the skills and strategies needed to teach physics effectively at 11 – 16 years.

- One day:
 - 15 Oct 2015 Ashford
 - 20 Oct 2015 Sheffield
 - 04 Nov 2015 Hertford
 - 05 Nov 2015 Sheffield
 - 05 Nov 2015 Hertford
 - 25 Nov 2015 Sheffield
 - 02 Dec 2015 Hertford
 - 03 Dec 2015 Hertford
 - 16 Dec 2015 Liverpool
 - 08 Feb 2016 Preston
 - 15 Feb 2016 Hertford
 - Activity Fee: £215 (ex VAT)
 - Bursary: £107.50 (Impact Award)

- Two day:
 - 02 Nov 2015 Durham
 - 12 Nov 2015 Birmingham
 - 18 Nov 2015 Sheffield
 - 08 Dec 2015 Sheffield
 - Activity Fee: £430 (ex VAT)
 - Bursary: £215 (Impact Award)

- Three day:
 - 12 Oct 2015 Workington
 - Activity Fee: £645 (ex VAT)
 - Bursary: £332.50 (Impact Award)

■ www.slcs.ac.uk/RP208

STRENGTHENING PRACTICAL WORK IN PHYSICS

Explore a range of ideas for teaching topics across the physics curriculum and develop an understanding of how practical work can be made more relevant and effective.

- 19 Jan 2016 Sheffield
- Activity Fee: £215 (ex VAT)
- Bursary: £107.50 (Impact Award)

■ www.slcs.ac.uk/RP201

BRINGING CUTTING EDGE SCIENCE INTO THE CLASSROOM: ARCHAEOLOGY

Understand the depth and breadth of the scientific processes involved in the archaeology of one particular site and use them to provide a context that will motivate your students.

- Location: Various
- Activity Fee: £210 (ex VAT)
- Bursary: £180 (RCUK)

■ www.slcs.ac.uk/RP450

BRINGING CUTTING EDGE SCIENCE INTO THE CLASSROOM: ASTROPHYSICS

This course aims to give you a firm grounding in key theories of space science, highlight recent advances in the field and provide you with an insight into current research efforts.

- 20 Nov 2015 Keele
- Activity Fee: £210 (ex VAT)
- Bursary: £180 (RCUK)

■ www.slcs.ac.uk/RP451

BRINGING CUTTING EDGE SCIENCE INTO THE CLASSROOM: CLIMATE CHANGE

You will explore practical ways in which the effects of climate change can be monitored so that you can engage students in scientific investigations.

- Location: Various
- Activity Fee: £210 (ex VAT)
- Bursary: £180 (RCUK)

■ www.slcs.ac.uk/RP453

BRINGING CUTTING EDGE SCIENCE INTO THE CLASSROOM: EARTHQUAKES AND OTHER NATURAL HAZARDS

This course will explore the science behind seismic hazards from global to local scales and how scientists are currently attempting to understand, monitor and manage these hazards.

- Location: Various
- Activity Fee: £210 (ex VAT)
- Bursary: £180 (RCUK)

■ www.slcs.ac.uk/RP455

RESIDENTIAL

A LEVEL PRACTICAL ENDORSEMENT: PHYSICS

Working with examiners, teachers and technicians we have developed a course that helps schools provide students with the practical skills to ensure a complete understanding of what is required.

- 10 Feb 2016 York (residential)
- Activity Fee: £551 (ex VAT)
- Bursary: £574 (ENTHUSE Award)

■ www.slcs.ac.uk/NY248

INSPIRING POST-16 PHYSICS

We have worked alongside research scientists, teachers and examiners to practise new activities, approaches and experiments which will help you inform and alter your classroom practice.

- 16 Mar 2016 York (residential)
- Activity Fee: £1,213 (ex VAT)
- Bursary: £1,036 (ENTHUSE Award)

■ www.slcs.ac.uk/NY502

NEW TO A LEVEL PHYSICS

With recent changes to the A level specification now is an ideal time to develop your schemes of learning and integrate inspiring and engaging practical activities.

- 06 Oct 2015 York (residential)
- Activity Fee: £1,162 (ex VAT)
- Bursary: £1,348 (ENTHUSE Award)

■ www.slcs.ac.uk/NY252

PHYSICS FOR NON-SPECIALISTS (11-16)

Designed to focus on the key principals needed to teach physics effectively through the use of stimulating practical activities and demonstrations.

- 21 Mar 2016 York (residential)
- Activity Fee: £1,212 (ex VAT)
- Bursary: £1,685 (ENTHUSE Award)

■ www.slcs.ac.uk/NY201

SCIENCE: PSYCHOLOGY

GOING FURTHER WITH PSYCHOLOGY

The course aims to deepen and develop classroom skills and understanding to promote active learning approaches.

- 04 Feb 2016 York
- Activity Fee: £1,102 (ex VAT)
- Bursary: £1,036 (ENTHUSE Award)

■ www.slcs.ac.uk/NY503

STARTING OUT WITH PSYCHOLOGY

Through engaging classroom practice, it focuses on key concepts, fostering an independent approach to further development.

- 04 Feb 2016 York
- Activity Fee: £1,102 (ex VAT)
- Bursary: £1,036 (ENTHUSE Award)

■ www.slcs.ac.uk/NY226

SCIENCE: TECHNICIANS

A DAY OF PHYSICS FOR TECHNICIANS

The day will be completely ‘hands-on’, allowing you the opportunity to try commonly used KS3 and GCSE practical activities.

- 10 Dec 2015 Durham
- 29 Jan 2016 Sheffield
- Activity Fee: £185 (ex VAT)
- Bursary: £92.50 (Impact Award)

■ www.slcs.ac.uk/RP659

INTRODUCTION TO THE ROLE OF SCIENCE TECHNICIAN

Sessions on this course will cover the role of a technician, general health and safety, policies and procedures, technician skills and working in a science department.

- 06 Oct 2015 Oxford
- 21 Oct 2015 Durham
- 21 Oct 2015 South Ockendon
- 04 Nov 2015 Sheffield
- Activity Fee: £185 (ex VAT)
- Bursary: £92.50 (Impact Award)

■ www.slcs.ac.uk/RP601

LEADERSHIP, TRAINING AND MANAGEMENT FOR SENIOR TECHNICIANS

Designed to enhance leadership and management skills, through examining the role of the senior technician, managing an effective technical service, creating and contacting local groups and training other technicians.

- 06 Oct 2015 Sheffield
- 14 Oct 2015 Oxford
- 12 Nov 2015 Keele
- Activity Fee: £185 (ex VAT)
- Bursary: £92.50 (Impact Award)

■ www.slcs.ac.uk/RP602

TECHNICIANS AS DEMONSTRATORS

This online course will take participants through a journey exploring the use of demonstrations in science to inspire pupils.

- Start date: 12 Oct 2015
- Activity Fee: £25

■ www.slcs.ac.uk/NE203

TECHNICIANS SUPPORTING A LEVEL BIOLOGY

This course, developed in collaboration with CLEAPSS, will give technicians an opportunity to learn skills and techniques specifically tailored to supporting advanced level biology.

- 10 Nov 2015 Ipswich
- 20 Jan 2016 Keele
- Activity Fee: £185 (ex VAT)
- Bursary: £92.50 (Impact Award)

■ www.slcs.ac.uk/RP603

**TECHNICIANS SUPPORTING
A LEVEL CHEMISTRY**

This course, developed in collaboration with CLEAPSS, gives technicians an opportunity to learn key skills and techniques required for the effective support of post-16 chemistry.

- 20 Oct 2015 Hertford
- 09 Nov 15 London
- 18 Nov 2015 Liverpool
- 24 Feb 2016 Keele
- Activity Fee: £185 (ex VAT)
- Bursary: £92.50 (Impact Award)
- www.slcs.ac.uk/RP604

**TECHNICIANS SUPPORTING
A LEVEL PHYSICS**

This course, developed in collaboration with CLEAPSS, gives an opportunity to learn skills and techniques specifically tailored to supporting advanced level physics.

- 17 Nov 2015 Hertford
- 02 Mar 2016 Keele
- Activity Fee: £185 (ex VAT)
- Bursary: £92.50 (Impact Award)
- www.slcs.ac.uk/RP605

**TECHNICIANS SUPPORTING
PRACTICAL WORK IN THE
CLASSROOM**

The course includes sessions on what makes good practical work, working effectively with teachers and students, assisting with practical project work, managing small group work and individuals with practical activities.

- 02 Oct 2015 Aylesbury
- 19 Nov 2015 Keele
- Activity Fee: £185 (ex VAT)
- Bursary: £92.50 (Impact Award)
- www.slcs.ac.uk/RP600

RESIDENTIAL**EXPERIENCED TECHNICIANS
PROGRAMME: BIOLOGY**

This course will examine and explore: microbiology, biotechnology, genetics, dissections, ecology, microscopy and working with animals and plants.

- 09 May 2016 York (residential)
- Activity Fee: £852 (ex VAT)
- Bursary: £777 (ENTHUSE Award)
- www.slcs.ac.uk/NY604

**EXPERIENCED TECHNICIANS
PROGRAMME: CHEMISTRY**

Examine and explore a range of practical activities which include micro-practicals, analytical techniques including chromatography, spectrometry and colorimetry, polymers, diffusion, electrolysis, distillations, titrations and demonstrations.

- 02 Nov 2015 York (residential)
- 11 Jan 2016 York (residential)
- Activity Fee: £852 (ex VAT)
- Bursary: £777 (ENTHUSE Award)
- www.slcs.ac.uk/NY605

**EXPERIENCED TECHNICIANS
PROGRAMME: PHYSICS**

This course will examine and explore: electricity, electronics, sound, light, radioactivity, forces, heat transfer, space, astronomy and electromagnets.

- 28 Sep 2015 York (residential)
- 22 Feb 2016 York (residential)
- Activity Fee: £852 (ex VAT)
- Bursary: £777 (ENTHUSE Award)
- www.slcs.ac.uk/NY606

**APPRENTICE TECHNICIANS:
HOW TO EFFECTIVELY LEAD
AND MANAGE**

Through an interactive session, you will explore the processes and skills involved in effectively training and managing an apprentice, from starting in the role to becoming an experienced and self-leading technician.

- 12 Feb 2016 York (residential)
- Activity Fee: £250 (ex VAT)
- Bursary: £220 (ENTHUSE Award)
- www.slcs.ac.uk/NY613

**SENIOR TECHNICIANS ACCREDITED
CO-LEADERS IN SCIENCE (STACS)**

Deliver an effective service, support engaging practical work, network with large numbers of colleagues and keep abreast of changes within the profession.

- 30 Sep 2015 York (residential)
- 18 Jan 2016 York (residential)
- Activity Fee: £3,327 (ex VAT)
- Bursary: £3,707 (ENTHUSE Award)
- www.slcs.ac.uk/NY600

SKILLS FOR NEW TECHNICIANS

This course will provide a thorough grounding in the science technician profession and is suitable for those new to the role within a school or college.

- 14 Oct 2015 York (residential)
- 02 Mar 2016 York (residential)
- Activity Fee: £1,924 (ex VAT)
- Bursary: £1,813 (ENTHUSE Award)
- www.slcs.ac.uk/NY601

TECHNICIANS IN THE CLASSROOM

This course will examine and explore: what makes good practical work, working effectively with teachers and students, presentations and demonstrations, assisting with practical project work and managing small group work and individuals with practical activities.

- 09 Dec 2015 York (residential)
- Activity Fee: £852 (ex VAT)
- Bursary: £777 (ENTHUSE Award)
- www.slcs.ac.uk/NY602

**THE A LEVEL TECHNICIANS
PROGRAMME: BIOLOGY**

This course will explore and examine a range of relevant practicals for technicians to support students with the practical endorsement and skills required at A level.

- 24 Sep 2015 York (residential)
- Activity Fee: £551 (ex VAT)
- Bursary: £440 (ENTHUSE Award)
- www.slcs.ac.uk/NY616

**THE A LEVEL TECHNICIANS
PROGRAMME: CHEMISTRY**

Explore and examine a range of relevant practicals for technicians to support students with the practical endorsement and skills required at A level.

- 05 Nov 2015 York (residential)
- Activity Fee: £551 (ex VAT)
- Bursary: £440 (ENTHUSE Award)
- www.slcs.ac.uk/NY618

**THE A LEVEL TECHNICIANS
PROGRAMME: PHYSICS**

This physics instance will explore and examine a range of relevant practical's for you to support students with the practical endorsement and skills required at A level.

- 01 Oct 2015 York (residential)
- Activity Fee: £551 (ex VAT)
- Bursary: £440 (ENTHUSE Award)
- www.slcs.ac.uk/NY617

CPD designed by technicians, for technicians.

We have created an academic year planner to highlight when our technician CPD will be running during 2015-16, all of which have been created to enhance the effective delivery of technical support in schools.

- You can download it at:
www.slcs.ac.uk/technicians

SCIENCE: CONFERENCES

**NEW AND RECENTLY QUALIFIED
TEACHERS' CONFERENCE**

Outstanding teachers continuously reflect, and in the early stages of your science teaching career it is important to reflect with your peers and identify areas of subject knowledge and pedagogy where you will need further support.

- 13 Nov 2015 Scunthorpe
- 11 Dec 2015 Horsham
- See website for details and information
- www.slcs.ac.uk/RP214

**SECONDARY SCIENCE LEADERSHIP
CONFERENCE – ACCOUNTABILITY
AND ASSESSMENT IN NEW
CURRICULUM**

This unique conference will enable secondary science leaders and senior leaders to learn more about key priorities from a Department for Education representative.

- 01 Dec 2015 Manchester
- Activity Fee: £100 (ex VAT)
- www.slcs.ac.uk/RP848

**RESEARCH CONFERENCE 'USING
RESEARCH TO IMPROVE TEACHING
AND LEARNING OF STEM SUBJECTS'**

Come away from this conference with different levels of research experience and expertise a range of opportunities to debate, network and share effective practice on research engagement in schools.

- 28 Oct 2015 York
- Activity Fee: £551 (ex VAT)
- Bursary: £578 (ENTHUSE Award)
- www.slcs.ac.uk/NY259

ONLINE

**MANAGING BEHAVIOUR
FOR LEARNING**

Learn how to positively influence the behaviour of your students through small shifts in your own behaviour.

- Start date: 02 Nov 2015
- Activity Fee: Free
- www.slcs.ac.uk/behaviour-management

ASSESSMENT FOR LEARNING

Improve your understanding and use of assessment for learning, a term that is widely used in education, but applied in ways that are variable in their effectiveness.

- Start date: 22 Feb 2016
- Activity Fee: Free
- www.slcs.ac.uk/assessment-for-learning



Triple Science Support Programme

The Triple Science Support Programme (TSSP) is funded by the Department for Education to support schools across England successfully offer separate science GCSE courses to students.

The National STEM Centre has a dedicated area for the TSSP including resources, eBooks and online communities.

- www.stem.org.uk/ms/triplescience

- www.slcs.ac.uk/ms/triplescience

**TRIPLE SCIENCE NETWORK
OF EXCELLENCE**

This network will consider what effective teaching and learning of the triple science extension modules could look like.

- See website for details and information
- www.slcs.ac.uk/RP793

Teacher and Support Staff Recognition Scheme

**Recognising the impact of
professional development**

Our FREE to enter Teacher and Support Staff Recognition Scheme allows you to demonstrate your commitment to professional learning and the impact it has on pupils, colleagues and the wider profession. In a world of accountability and performance related pay progression, it provides evidence against the Teacher Professional Standards.

You may win an ENTHUSE Celebration Award for your work and be invited to the ENTHUSE Celebration Awards in London.

We are now taking applications from teacher and support staff working in any UK school or college, teaching pupils aged 4-19, in one of three categories.

- Effective STEM Teacher or Support Staff
- Leading STEM Teacher or Support Staff
- National Expert STEM Teacher or Support Staff

- Find out more about how to enter at
www.slcs.ac.uk/recognise

Bespoke CPD tailored to your needs

Our comprehensive range of support can be requested as a bespoke offer for your department, school or network. We can make the CPD more effective and tailored to the specific challenges and needs your school faces.

Our consultants have a proven track record of highly evaluated, impactful professional development and a wealth of experience in supporting teachers, technicians and support staff in all aspects of STEM education.

- www.slcs.ac.uk/ms/bespoke



Project ENTHUSE

Supporting state funded schools across the UK with access to high impact professional development.

Project ENTHUSE is a unique partnership of government, charities and employers that have come together to bring about inspired STEM teaching, through the continuing professional development of teachers, technicians and support staff across the UK. The ENTHUSE Partners are the Wellcome Trust, the Department for Education, BAE Systems, BP, Institution of Engineering and Technology, Institution of Mechanical Engineers, Rolls-Royce and the Royal Society of Chemistry.

ENTHUSE AWARDS

Bursaries available to all state funded schools and colleges in the UK to support participation in professional development through the National Science Learning Centre and partners in Scotland, Northern Ireland and Wales. See our full CPD listing on page 18.

■ www.slcs.ac.uk/ms/enthuse

INTENSIVE ENTHUSE AWARDS

£5,000 bursaries to support in-school, consultant led professional development for state schools in England that have not participated in Project ENTHUSE supported professional development in the last five years.

■ www.slcs.ac.uk/ms/intensive-enthuse

ENTHUSE PARTNERSHIPS

£12,000 for groups of between four and eight primary schools located in England, wishing to work together to address local issues of underachievement in science/STEM subjects.

■ www.slcs.ac.uk/ms/enthuse-partnership

TEACHER & INDUSTRIAL PARTNERS' SCHEME

IMechE and IET supported two week placements with local employers to help teachers expand their knowledge of engineering and technology careers to help inspire the next generation of scientists and engineers.

■ www.slcs.ac.uk/ms/tips

New A level science curriculum: we've got it covered

Our handy science web page is bursting with fresh ideas and free resources to help you tackle the new A level curriculum with confidence.

www.stem.org.uk/ms/alevel-science

