This prospectus explains how the network operates to support high quality science teaching through professional development.

In these pages you will find information about:
- our significant expertise in science education, including the extensive partnerships we have with other organisations
- how we design professional development that is of very high quality and has impact
- professional development content – relevant to the needs of all involved in the teaching of science
- how we make professional development accessible and affordable
- how teachers can gain accreditation through their experiences
- how teachers build and develop their expertise through a series of linked courses

The National Science Learning Centre in York and the nine regional Science Learning Centres across England make up the national network of Science Learning Centres.

The prospectus is laid out so that you can see the background behind the programme we offer at the regional Centres and national Centre before examining the offer in detail.

Details in this prospectus are correct at the time of going to print (May 2010) but could be subject to change at a later date. For the most up to date information visit www.slc.ac.uk.
More than ever, science is critical to the future of the UK. With 1% of the world’s population, we produce nearly 10% of the world’s scientific research, and science lies at the bedrock of our economy.

But you cannot have world class science without world class science teaching in schools – to inspire and prepare the new generation of scientists and engineers and to ensure that all citizens have the basic scientific literacy needed to make sense of a world in which science and technology shape our lives.

The network of Science Learning Centres was established by the government and the Wellcome Trust, to provide high quality professional development opportunities for science teachers in primary and secondary schools and colleges across the UK. With a Centre in each English region, and a national Centre for the whole of the UK in York, we have worked together to provide the professional development programme in this prospectus. Our aim is to anticipate the needs of teachers and technicians in the coming year of change, with courses and tailored offerings focused on developments in the curriculum, in teaching techniques and in science itself.

We appreciate that, for many teachers, it is difficult to get to participate in professional development that is a critical part of doing the job professionally. ENTHUSE awards at the National Science Learning Centre and the expected Impact Awards at the regional Centres are easy-to-apply-for bursaries that remove the financial barrier of coming to the Centres. And for those who prefer to do their professional development in their own institution, we offer tailored in-school training.

We look forward to welcoming you to the Science Learning Centres in 2010/11.
The national network of Science Learning Centres designs all professional development in collaboration with teachers, scientists and education researchers.

We draw on the best evidence of good experiences that have proven impact in schools and classrooms. All our programmes are led by experienced practitioners and allow participants to increase their expertise of effective teaching approaches and up-to-date science. Participants are both supported and challenged during interactive sessions aimed at improving the learning of science.

We know that network professional development is effective. We have many unsolicited, very positive comments about the quality of experiences and the impact on schools as a result. Each year, we follow up a sample of participants to explore the nature of impact in detail. In 2008/09, over 70% showed learners had a greater motivation for science, and 56% indicated improvements in learning as a result of activities from our courses.

We lead the way in the evaluation of professional development, through the research projects we run, linking with science education researchers nationally and internationally. Evidence shows that network professional development does not just benefit the participants on the programmes but has a significant impact on the school as a whole.

In this coming year, you can access professional development through in-school sessions and online support as well as experiences in venues across the region and country.

Professional Development Themes, Pathways and Linked Courses

The primary programme themes reflect the way that teaching is organised in primary schools where the majority of primary teachers teach all subjects including science rather than being science specialists.

As teachers go through their career they will develop different professional development needs. This programme recognises this and aims to offer a rich menu of courses linked to four themes for those at different stages of their career.

The themes are:

- **Leadership**

  This theme is concerned with the development of leadership skills in practitioners. Strong leadership is an essential component of successful science teaching and learning, as well as the role that leaders have in modelling and disseminating good practice through coaching and professional development of colleagues. There is a particular focus on CPD for emergent, new and aspiring leaders in science education, and there is also provision for experienced leaders to extend their skills.

- **Science Across the Curriculum**

  Schools plan their curriculum to include an appropriate balance of both focused and cross curricular subject teaching, bearing in mind progression, skills, knowledge and understanding. These network courses support teachers to make effective links between subjects and embed scientific ideas and principles.

- **Supporting Science Teaching**

  Effective functioning of science teaching and learning depends not only on the teacher but also on the key roles played by other staff. This theme provides a combination of skills, knowledge and career focused training for teaching assistants.

- **Teaching, Learning and Assessment**

  This theme offers courses which underpin science teaching, learning and assessment. It draws on current research and translates it into practical and effective actions that can be taken into the classroom. The courses raise awareness of the breadth and diversity of strategies available and keep participants up to date with new developments in practice.

> “Over the last 3 years, I have attended several courses, enabling me to gain in confidence, experience and helping me to work towards the next stages in my career.”

Jayne McFadden, St Richard Gwyn School, Flint

In 2009, 88% of a sample of participant respondents showed that the CPD had led to a change in their practice. 87% developed new skills in teaching.

“It is quality training. We have people who attend courses, who can be critical in the best sense of the word and they come back saying ‘this is good’. Somebody has done a good job somewhere and needs a pat on the back!”

Line manager 2009

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“It is quality training. We have people who attend courses, who can be critical in the best sense of the word and they come back saying ‘this is good’. Somebody has done a good job somewhere and needs a pat on the back!”

Line manager 2009
The ENTHUSE Award covers:

- course fees
- travel and supply cover
- accommodation and food
- a contribution to support follow-up activities in your school or college
- and is paid directly to the school on completion of the course and submission of your action plan

All teachers, tutors, lecturers, teaching assistants and technicians involved in science teaching in maintained schools and colleges in England, Scotland, Wales, Northern Ireland and the Republic of Ireland are eligible for ENTHUSE Awards.

Before coming on one of our courses you will be asked to complete an Impact Identifier form. The purpose of this is to help you to maximise the impact the course will have in your school or college. Most of our courses are residential and split over two periods between which you’ll carry out a gap task. Finally, at the end of your course, you will develop and submit an action plan, identifying ways in which you can implement your ideas on your return to your school or college.

For further information about ENTHUSE Awards visit the website www.slcs.ac.uk/national/enthuseaward

Courses which carry the ENTHUSE Award are clearly labeled with the ENTHUSE Award icon.

The Science Learning Centres recognise that funding within schools and colleges is limited. Until the end of March 2011 we expect to offer bursaries (known as Impact Awards) provided by the Department for Education to the value of £200 per teacher per day for those courses which help support changes in the curriculum.

We recognise that CPD is most valuable and effective when individuals have the opportunity to review and reflect on their CPD. Courses which are expected to carry Impact Awards are clearly labeled with the Impact Award icon.

In order to receive an Impact Award, individuals will need to be from a maintained primary school. Impact Awards are for eligible courses which are scheduled in the programme and in some cases may be provided for courses which are requested specifically by schools or clusters of schools. This provides an excellent opportunity to access courses in a way which is most convenient and relevant for you and your school.

For further information about Impact Awards and eligibility criteria please contact your Regional Science Learning Centre or visit: www.slcs.ac.uk/about/impact-awards

Making Professional Development Affordable

The ENTHUSE Award

Project ENTHUSE is a partnership supported by The Wellcome Trust, the Department for Education, AstraZeneca, AstraZeneca Science Teaching Trust, BAE Systems, BP, General Electric Foundation, GlaxoSmithKline, Rolls-Royce, Vodafone and Vodafone Group Foundation.

These organisations have come together as the ENTHUSE Charitable Trust, to provide the ENTHUSE Award to help schools send teaching staff on Continuing Professional Development (CPD) courses at the National Science Learning Centre.

The network will give a free standing award set at the equivalent of 30 credits at Masters Level on successful completion of a minimum of four days’ professional development at a Science Learning Centre combined with additional independent study involving classroom based action research, interaction with an online learning environment and reflection of professional practice, all encapsulated in a final portfolio.

These awards may be used by teachers as part of a Masters programme within their local universities, and link with other accreditation schemes such as the Teaching and Learning Academy and Chartered Science Teacher.

The scheme is being piloted during the year, with volunteers who are planning to do professional development at one or more of the Science Learning Centres.

If you would like more information about this opportunity and about receiving awards towards other accreditation schemes please contact either your regional Science Learning Centre, or visit the website www.slcs.ac.uk/network/accreditation

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Science Learning Centres

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Introducing the Accreditation Programme

The national network of Science Learning Centres has developed an opportunity for teachers to achieve professional recognition arising from their engagement in the network professional development programme.
Delivering
Professional Development

The national network of Science Learning Centres
works hard to ensure they provide a comprehensive range
of course options to meet all science CPD needs.

We appreciate that our delegates and schools
have differing priorities and our course
programme reflects this by offering a broad and
diverse range of opportunities. Our courses focus
on providing up-to-date information, time for
networking, reflection and future planning.

The regional Science Learning Centres provide local,
convenient, high quality facilities for science CPD.
These Centres mainly offer one day courses although
some courses can be up to three days long.

- Residential courses
  The National Science Learning Centre in York offers
  intensive training support for teachers through
  residential courses. The self contained facilities
  provide opportunities for exciting and engaging CPD
designed to inspire and inform teaching practice. In
  most cases these courses enable teachers to conduct
  in depth analysis of their teaching through a gap task
  undertaken between residential periods. Courses at the
  National Science Learning Centre are also supported
  by ENTHUSE funding which is a generous bursary, paid
direct to the school, covering the cost of course fees,
supply cover, travel and resources (see page 8).

- Easy access
  Whilst regional Centres provide excellent
  opportunities for CPD on site, most regions will
  also offer courses which are delivered in our
  satellite venues, reducing travel time and increasing
  accessibility. Our satellite venues include schools,
  industry partners and museums and in addition to
  this we have a range of courses within our programme
  which are delivered partly online. This provides an
  alternative method of accessing CPD for people who
  encounter difficulties in being released from school
  and have an interest in learning using the most up-to-
date technology.

- We’ll come to you
  Increasingly regional Centres are working towards
delivering courses to individual schools or clusters
of schools and we invite schools to approach us with
their CPD requirements as we have the expertise and
resources to meet most requests. The regional Science
Learning Centres have been developing and delivering
CPD programmes that can be tailored to meet the
needs of collective groups of schools covering a wide
range of areas including subject content, enquiry
skills, assessment and teaching and learning. CPD
programmes can also be delivered on identified
training days or as a series of twilight sessions and
can often be delivered in schools. By working as
a collective group, schools will find CPD from the
regional Science Learning Centres exceptional value
for money. Courses requested by schools or groups
of schools are priced individually depending on
requirements and in limited number of cases it may
be possible for delegates to receive Impact Awards of
up to £200 per person.

- Online support
  In addition, the network of Science Learning Centres
  is also offering some of its professional development
  programme online. These courses are planned to be
delivered face to face, and partly online. The online
  element is integral to the professional development
  and allows participants to reflect and share progress
  in a supportive and collaborative environment. The
  short online activities enable participants to engage at
times convenient to them.

- Requesting a course with the regional Science Learning Centres
  If you see a course in the prospectus which
  you would like to run for your school or for
  a group of schools you work with, please
  contact the staff at the regional Science
  Learning Centres who would be delighted
to discuss these requirements with you.
  Use this prospectus and the website to
  identify your CPD requirements and locate
  your regional Science Learning Centre, then
  simply call and we will talk through the
  options and do our best to meet your needs.

- Easy access
  - Residential courses
  - We’ll come to you
  - Online support

Look out for the courses bearing
the ‘online’ icon, as these will
contain the online element.
New ideas are often trialled in one or two Centres and then good practice is shared with all centres and incorporated into new activities. All the Centres have close links with their local higher education institutions and draw on the expertise in these organisations. Network wide initiatives are often run in partnership with other organisations. Our national partners and funders include the Association for Science Education, Institute of Physics, Royal Society of Chemistry, Research Councils UK, Learning and Skills Network (LSN), Training and Development Agency for Schools, Gatsby Charitable Foundation, Royal Academy of Engineering, Design and Technology Association, STEMNET, CLEAPSS, the National Institute for Adult and Continuing Education, the Smallpeice Trust, the Specialist Schools and Academies Trust and the Royal Geographical Society.

In addition, the network of Science Learning Centres have a wide range of regional partners who work in science, technology, engineering and maths and the co-ordination of CPD is facilitated with these organisations and work is undertaken with them on a range of projects.
The Centre leads the government’s STEM Programme cohesion activity, bringing together many organisations with a shared mission to support STEM education. We also provide direct support for teachers and lecturers through our extensive resource collections.

At the heart of the Centre is our purpose built resources area, which holds collections for science, design and technology, engineering and mathematics across the 5 – 19 age groups. You are already welcome to visit the resource collections in person, and during 2010 we will begin to make material available online through our eLibrary.

Alongside contemporary resource materials (including print, multimedia, and practical resources) the Centre holds an archive collection, which showcases a history of curriculum development. The archive is thus an essential resource for teachers and lecturers, providing a treasure chest of ideas developed over several decades.

We are always on the look out for ways to ensure that our collections are developed to meet your needs. You can get involved in the development of the collections by becoming a Teacher Associate – suggesting resources and sharing expertise by reviewing materials.

For further information please visit www.nationalstemcentre.org.uk where you can register for notification of the eLibrary launch.
Title of course →

Moving Forward with New Curriculum Developments

Short course synopsis →

The course will provide an opportunity for primary and secondary schools to consider transition with a particular focus on progression in skills and assessment. APP for science will now follow through from KS1 to KS3 using the same assessment criteria from level 1 to level 8 and it is important to develop common understanding in the application of these criteria.

Learning outcomes →

Participants will be able to:
- demonstrate a common understanding of evidence based assessment
- evaluate approaches to assessment to enrich practice at both key stages
- explore opportunities presented by common assessment criteria to secure improved rates of progress for pupils from KS1 to KS2 and from KS2 to KS4

Code: 10014

Ideal for: secondary teachers, heads of science

Age group: 7 – 14 years

Length: 1 day

ENTHUSE Award:
- Covers course fees, supply cover, associated course costs and a little left over to use once back in the classroom.
- Look out for the icon.

Impact Award (may be available):
- Covers course fees with a little left over towards supply cover and other course costs.
- Look out for the icon.

Course code: 10014

Course fee: £130

Course fee for ENTHUSE Award: £1482

For more information visit www.slcs.ac.uk/network/10014

This course would lead well into Extending the Role of the Science Subject Leader at the National Centre. Visit www.slcs.ac.uk/nationalcentre/10106

Impact Award may be available

Easy Next Steps

- find the course you want
- check the icons for information about the course.
- If you are from a maintained school and attend a course at the National Science Learning Centre you will be eligible for an ENTHUSE Award. If you are from a maintained school and attend a course at a regional Centre, many of these courses may carry Impact Awards, for which you may also be eligible.

Course code

You’ll need this to book the course

Age range of students

7 – 14 years

Course fee

£130

Course fee for ENTHUSE Award: £1482

For more information visit www.slcs.ac.uk/network/10014

To book a place on a course call 0845 155 1714 or book online at www.slcs.ac.uk/courses

Alternatively you can use our ‘fax back’ form found at www.slcs.ac.uk/faxbackform

If you encounter any problems or have any further enquiries, email enquiries@slcs.ac.uk quoting the course code in the subject line.

Look on the website for further information, and check the details for financial support that might be available.

Make sure you have sign off from your head of department.

Book your course - please indicate how you heard about the course.

18
Network Programme

The programme of continuing professional development across the network has been informed by teachers’ needs as well as the national education priorities from across the UK.

The network programme is organised around themes, see page 7. For each theme there are courses at the regional Centres and the National Science Learning Centre. The courses have been designed so that regional Centre courses and National Centre courses within a theme are complementary.

The courses from pages 24 to 31 are available at the National Science Learning Centre in York.

The courses from pages 32 to 39 are available in all regional Science Learning Centres.

Additional courses specific to each region can be found from page 40.
Our Courses Focus on
- teaching and learning approaches, including developing practical but innovative and creative activities to enthuse young people for learning about science
- up-dating scientific knowledge, involving opportunities for direct engagement with research scientists and visits to internationally important research facilities
- building capacity in schools through sharing practice and leadership

Our Centre
The National Science Learning Centre is an £11 million purpose-built, state of the art facility, situated on the attractive campus of the University of York. The Centre features the highest specification teaching laboratories, multiple teaching rooms, a 291 seat auditorium, and the National STEM Centre, a purpose built resource area holding collections for science, design and technology, engineering and maths teaching. The Centre offers excellent quality food in our contemporary in-house restaurant and Franklin House, situated adjacent to the Centre, offers business class accommodation for course participants.

Our Objectives
The National Science Learning Centre offers an extensive programme of over 70 courses. Our aim is to support those in the science education community:
- who may be teaching any aspects of science, from the traditional academic subjects (biology, chemistry and physics), to those teaching science in a vocational or applied context (hair and beauty), and newer subjects to the science curriculum such as psychology and engineering
- from the start of their career to those who have gained sufficient experience to take on a leadership role
- who teach in the primary, secondary or post-16 sectors

For further details about any of our activities please contact us: 01904 328 300 | enquiries@slcs.ac.uk | www.slcs.ac.uk/national

"Opened in October 2005, the National Science Learning Centre has had over 4300 participants on our intensive, residential courses from 2300 schools and colleges. Participants include teachers, tutors, lecturers, technicians and teaching assistants from schools and colleges across the whole of the UK and we hope to be able to welcome you and your colleagues to the Centre in the coming year."

Welcome to the National Science Learning Centre

Miranda Stephenson, National Centre Programme Director
Primary Science and Design and Technology Conference

This annual event brings together primary teachers, teaching assistants, science subject leaders and design and technology subject leaders for the first time. Colleagues involved in primary education are also welcome to attend.

The conference opens with a keynote talk followed by a series of interactive workshops and also includes time to explore the STEM Centre, where there will be an exhibition of primary resources. Participants may choose to arrive the night before the conference and stay in our accommodation, adjacent to the Centre.

Participants will be able to:

- Inspire children and colleagues to enjoy science and design technology
- Use a range of creative and cross-curricular approaches
- Share best practice with other primary teachers and explore new resources

Code: NAC10101

Ideal for primary teachers, science co-ordinators and leaders, design and technology subject leaders, teaching assistants

Age group: 4 – 11 years

Length: 1 day

Course fee: £156 + VAT

ENTHUSE Award: £316

For more information visit: www.slcs.ac.uk/national/nac10101

Science AST Conference

This is an annual event to bring together both primary and secondary science Advanced Skills Teachers. Two day conference includes key note speakers and optional workshops on a diverse range of topics focused not only on leadership and pedagogy, but also innovation in teaching and contemporary science. The sessions are delivered by current ASTs, scientists and educational experts and, as ever, there will also be opportunity to share best practice with colleagues.

Participants will be able to:

- Learn new teaching and learning strategies to use in their classroom and share with colleagues
- Develop an awareness of current advancements in science and science education
- Have more confidence to lead science in their school and partner schools

Code: NAC10109

Ideal for primary teachers, secondary teachers, ASTs

Age group: 5 – 10 years

Length: 2 days

Course fee: £351 + VAT

ENTHUSE Award: £671

For more information visit: www.slcs.ac.uk/national/nac10109

You might also be interested in Coaching: Unlocking the Potential in Others at the National Centre. Visit www.slcs.ac.uk/national/nac10110

Understanding and Teaching the Tricky Bits of Science

This course will provide participants with the knowledge and understanding of science concepts and skills needed to teach primary science and is intended for teachers and science subject leaders who do not have a science background. The course includes sessions that explore forces, electricity, materials and life processes. Participants will have the opportunity to carry out practical investigations and look at how to teach specific concepts and enquiry skills.

Participants will be able to:

- Develop greater awareness of science subject knowledge and science ‘big ideas’
- Complete a risk assessment and understand health and safety issues in a practical science lesson
- Identify their own, and better manage children’s common misconceptions in science

Code: NAC1010

Ideal for primary science ASTs

Age group: 5 – 11 years

Length: 1 day

Course fee: £152 + VAT

ENTHUSE Award: £271

For more information visit: www.slcs.ac.uk/national/nac1010

You might also be interested in Coaching: Unlocking the Potential in Others at the National Centre. Visit www.slcs.ac.uk/national/nac10110

Leading Science in Challenging Primary Schools

This two part course aims to support science co-ordinators in motivating colleagues to engage pupils in meaningful learning experiences. The principles of team leadership will be taught through a range of primary science curriculum contexts.

Participants will be able to:

- Explore the use of different learning environments
- Develop strategies to employ in managing behaviour during science sessions
- Develop strategies for an inclusive approach to the development of children’s literacy, numeracy and ICT skills through science
- Develop strategies to identify innovative investigations to improve children’s investigative skills
- Develop skills to support colleagues in their teaching of scientific enquiry

Code: NAC10105

Ideal for primary and secondary science Advanced Skills Teachers, science co-ordinators and leaders

Age group: 4 – 11 years

Length: 6 days*

Course fee: £1916 + VAT

ENTHUSE Award: £3416

For more information visit: www.slcs.ac.uk/national/nac10105

You might also be interested in Leading Curriculum Change at the National Centre. Visit www.slcs.ac.uk/network/nac1010

- 9 days face to face split over 2 years, 2 days online

Extending the Role of the Science Subject Leader

This three part course is intended to develop experienced science subject leaders in all key areas of their role. During the three residential periods, participants will have the opportunity to reflect upon and enhance their leadership and management skills.

Participants will be able to:

- Define and reflect upon outstanding teaching and learning in science
- Use teaching and learning strategies to engage and inspire pupils and colleagues
- Employ strategies and develop skills to become a highly effective leader of science and its assessment across the school
- Produce an action plan to implement and evaluate

Code: NAC10106

Ideal for science co-ordinators and leaders

Age group: 4 – 11 years

Length: 11 days*

Course fee: £1916 + VAT

ENTHUSE Award: £3416

For more information visit: www.slcs.ac.uk/network/nac10106

You might also be interested in Leading Curriculum Change at the National Centre. Visit www.slcs.ac.uk/network/nac1010

- 9 days face to face split over 2 years, 2 days online

Leadership

This conference is my favourite day out of the classroom. It is the second year I have been and it has been informative, inspirational and a big confidence boost!”

Participant, 2009
Coaching: Unlocking the Potential in Others

Research shows that coaching is by far the most effective form of CPD in changing classroom practice. Coaching is also a tool for helping colleagues to clarify their goals and decide on actions they can take to achieve those goals.

This course explores the skills and expertise needed to become a coach and develop a repertoire of effective questions. There will be time during the course to share coaching experiences and plan how to implement coaching in school.

Participants will be able to:
- define the nature and aims of coaching
- develop coaching skills
- ask questions that encourage the coachee to reflect and gain new insights
- identify actions needed in their own school to implement and develop coaching

Participants will be:
- primary teachers, science co-ordinators and leaders, secondary teachers

Age group: 5 – 16 years
Length: 6 days*
Course fee: £1013 + VAT
ENTHUSE Award: £152

For more information visit:
www.slcs.ac.uk/network/10031

Leading Curriculum Change

Schools are in the process of developing their curriculum, some schools have taken a cross-curricular approach whilst others are planning a skills-based curriculum.

This course will explore the implications of curriculum change, looking at the particular challenges of leading staff and moving pupils forward. Participants will also be given advice on how to develop action plans that will bring about sustainable and effective change for all stakeholders.

Participants will be able to:
- lead innovation in curriculum development
- evaluate the impact of curriculum change
- produce an action plan for science in their school.

Participants will be:
- primary teachers, science co-ordinators and leaders, ASTs

Age group: 4 – 11 years
Length: 5 days*
Course fee: £632 + VAT
ENTHUSE Award: £1632

For more information visit:
www.slcs.ac.uk/network/10129

Achieving Excellence in Primary Science Teaching

This course considers how to develop science across the school, including the Primary Science Quality Mark. Participants will explore the potential to achieve professional recognition and reflect upon the achievements and future directions of their school.

This course includes sessions on inspiring colleagues, action planning, strategies to develop science in school, and making successful applications for recognition for all stakeholders.

Participants will be able to:
- articulate the features and impacts of effective professional development
- recognise the characteristics of a reflective teacher and identify supporting frameworks
- evaluate strategies for developing science in their school.

Participants will be:
- primary teachers, science co-ordinators and leaders

Age group: 4 – 11 years
Length: 5 days*
Course fee: £569 + VAT
ENTHUSE Award: £1492

For more information visit:
www.slcs.ac.uk/network/10175

Science and the Creative Arts

This is an exciting two part course which offers new ideas to enhance primary science and develop children’s creativity. Through interactive and innovative sessions participants will experience a cross-curricular approach to science through creative arts.

Participants will be able to:
- engage in hands-on activities to illustrate a range of creative approaches to science
- consider how to raise the profile of science through embedding it in a cross-curricular way
- develop creative strategies for children to record and communicate their scientific ideas

Participants will be:
- primary teachers, science co-ordinators and leaders

Age group: 4 – 11 years
Length: 4 days split over 2 terms
Course fee: £704 + VAT
ENTHUSE Award: £1520

For more information visit:
www.slcs.ac.uk/national/nac10107

Developing Skills and Understanding for a Scientific and Technological Future

This course considers not only the curriculum but every aspect of how scientific and technological advancements affect school and children’s lives.

There are sessions on how to make best use of science in the news, ethical and moral questions, careers in science and changing explanations of how the world works.

Participants will be able to:
- use activities that develop children’s scientific literacy
- use real life examples of scientific and technological advancements in their science teaching
- produce an action plan for science in their school

Participants will be:
- primary teachers, science co-ordinators and leaders

Age group: 4 – 11 years
Length: 4 days split over 2 terms
Course fee: £702 + VAT
ENTHUSE Award: £1500

For more information visit:
www.slcs.ac.uk/national/nac10163

Teaching Science and the Understanding of Careers

This course would be complemented by Linking Science and Careers, a regional Centre.

Visit www.slcs.ac.uk/network/10053

Teaching Science and the Care of Careers

This course would be complemented by Linking Science and Careers, a regional Centre.

Visit www.slcs.ac.uk/network/10053

* 5 days face to face split over 2 terms, 1 day online

"I was slightly unsure of the use of coaching but have been completely inspired and every outcome was met for me.”

Participant, 2009
Creative Curriculum Design

This course will evaluate the current curriculum and help to develop a new curriculum that brings learning to life. Participants will consider how they can plan for a creative curriculum that supports and challenges all curriculum themes.

This course will explore and develop participants’ ability to plan and deliver a broad and balanced curriculum. Using examples of best practice from around the UK, participants will develop schemes of work for a variety of topics beyond ‘Houses and Homes’.

Participants will be able to:
1. plan for curriculum progression
2. develop effective cross-curricular links
3. produce an action plan for science in their school

Code: NAC10154
Ideal for: primary teachers, science co-ordinators and leaders, ASTs
Age group: 4 – 11 years
Length: 4 days split over 2 terms
Course fee: £702 + VAT
ENTHUSE Award: £1104 + VAT
For more information visit: www.slcs.ac.uk/network/nac10154

Extending Gifted and More Able Children in Primary Science

This two part course addresses how to identify children that have exceptional ability and identifies ways to meet their educational needs. Participants will look at enrichment activities that can be used to stimulate the curiosity of gifted and more able children and stimulate higher order thinking.

Participants will be able to:
1. clarify appropriate levels of expectation of gifted children in science and how to provide a rich and stimulating environment for them
2. develop strategies to promote learning using higher level thinking skills
3. become more confident in delivering a range of challenging open-ended activities
4. plan to use what they have learnt to make an impact

Code: NAC10104
Ideal for: primary teachers, science co-ordinators and leaders, gifted and talented co-ordinators
Age group: 4 – 11 years
Length: 4 days split over 2 terms
Course fee: £702 + VAT
ENTHUSE Award: £1104 + VAT
For more information visit: www.slcs.ac.uk/network/nac10104

Developing the Role of the Design and Technology Subject Leader

This course will develop the skills needed to lead design and technology in school. Participants will consider the unique contribution of design and technology to children’s learning, and will explore how to make effective connections between science and design and technology. The course includes sessions on textiles, food, mechanisms and electrical control, assessment, questioning skills, design, cross-curricular links and health and safety.

It is possible for participants to obtain accreditation on completion of the course.

Participants will be able to:
1. develop the role of subject leader to raise the profile of design and technology throughout the school
2. make effective connections between science and design and technology

Code: NAC10170
Ideal for: primary teachers, design and technology subject leaders
Age group: 4 – 11 years
Length: 6 days split over 2 terms
Course fee: £1104 + VAT
ENTHUSE Award: £2,504
For more information visit: www.slcs.ac.uk/network/nac10170

More Able Children

This course is aimed at teachers and other staff in mainstream and special schools who are teaching science to pupils with a range of special educational needs.

Participants will look at overcoming barriers to learning and engaging pupils through a multi-sensory approach. There are sessions that will support the planning of science activities for pupils with severe learning difficulties and assess their progress. The course includes sessions on specific issues eg autism, dyslexia and behaviour strategies.

Participants will be able to:
1. consider ways to ensure that inclusion is genuinely embodied in their planning and teaching
2. use strategies to support access to science for pupils with special needs
3. plan a multi-sensory approach to scientific enquiry

Code: NAC10150
Ideal for: primary teachers, science co-ordinators and leaders, gifted and talented co-ordinators
Age group: 4 – 11 years
Length: 4 days split over 2 terms
Course fee: £702 + VAT
ENTHUSE Award: £1104 + VAT
For more information visit: www.slcs.ac.uk/network/nac10150

Practical teaching strategies will be shared and participants will identify their own, and better manage pupils’ educational needs. Practical workshops will look at common misconceptions in science and provide effective feedback and identify pupils’ next steps.

Participants will be able to:
1. consider health and safety issues in a practical science lesson
2. differentiate tasks to support less able or extend more able pupils
3. identify their own abilities and develop strategies to meet the needs of gifted and talented pupils

Code: NAC10111
Ideal for: teaching assistants, HTs, ASTs
Age group: 5 – 16 years
Length: 4 days split over 2 terms
Course fee: £702 + VAT
ENTHUSE Award: £1104 + VAT
For more information visit: www.slcs.ac.uk/network/nac10111

Teaching Assistants Taking the Lead

Participants will also be involved in a day of practical activities, one session on planning and organisation of challenging open-ended activities, and one session on effective feedback and identifying pupils’ next steps.

Participants will be able to:
1. identify their own abilities and develop strategies to meet the needs of gifted and talented pupils
2. consolidate their multi-sensory approach to science
3. consolidate their multi-sensory approach to science

Code: NAC10112
Ideal for: teaching assistants, HTs, ASTs
Age group: 5 – 16 years
Length: 4 days split over 2 terms
Course fee: £702 + VAT
ENTHUSE Award: £1104 + VAT
For more information visit: www.slcs.ac.uk/network/nac10112

This course would follow well from Teaching Science to Students with SEN at a Regional Centre. Visit www.slcs.ac.uk/network/nac10108

Supporting Science Teaching

This course will explore and develop participants’ ability to plan and deliver a broad and balanced curriculum. Using examples of best practice from around the UK, participants will develop schemes of work for a variety of topics beyond ‘Houses and Homes’.

Participants will be able to:
1. plan for curriculum progression
2. develop effective cross-curricular links
3. produce an action plan for science in their school

Code: NAC10164
Ideal for: primary teachers, science co-ordinators and leaders, ASTs
Age group: 4 – 11 years
Length: 4 days split over 2 terms
Course fee: £702 + VAT
ENTHUSE Award: £1104 + VAT
For more information visit: www.slcs.ac.uk/network/nac10164

Science across the Curriculum

For more information visit: www.slcs.ac.uk/network/nac10129

ENTHUSE Award

Course fee

Length

Age group

Ideal for

Code

This course would evaluate the current curriculum and help to develop a new curriculum that brings learning to life. Participants will consider how they can plan for a creative curriculum that supports and challenges all curriculum themes.

This course will explore and develop participants’ ability to plan and deliver a broad and balanced curriculum. Using examples of best practice from around the UK, participants will develop schemes of work for a variety of topics beyond ‘Houses and Homes’.

Participants will be able to:
1. plan for curriculum progression
2. develop effective cross-curricular links
3. produce an action plan for science in their school

Code: NAC10154
Ideal for: primary teachers, science co-ordinators and leaders, ASTs
Age group: 4 – 11 years
Length: 4 days split over 2 terms
Course fee: £702 + VAT
ENTHUSE Award: £1104 + VAT
For more information visit: www.slcs.ac.uk/network/nac10154

ENTHUSE Award

Course fee

Length

Age group

Ideal for

Code

Participants will be able to:
1. plan for curriculum progression
2. develop effective cross-curricular links
3. produce an action plan for science in their school

Code: NAC10154
Ideal for: primary teachers, science co-ordinators and leaders, ASTs
Age group: 4 – 11 years
Length: 4 days split over 2 terms
Course fee: £702 + VAT
ENTHUSE Award: £1104 + VAT
For more information visit: www.slcs.ac.uk/network/nac10154

ENTHUSE Award

Course fee

Length

Age group

Ideal for

Code

You might also be interested in Developing Thinking and Social Skills through Science at a regional Centre. Visit www.slcs.ac.uk/network/nac10104

Participants will also be involved in a day of practical activities, one session on planning and organisation of challenging open-ended activities, and one session on effective feedback and identifying pupils’ next steps.

Participants will be able to:
1. identify their own abilities and develop strategies to meet the needs of gifted and talented pupils
2. consolidate their multi-sensory approach to science
3. consolidate their multi-sensory approach to science

Code: NAC10112
Ideal for: teaching assistants, HTs, ASTs
Age group: 5 – 16 years
Length: 4 days split over 2 terms
Course fee: £702 + VAT
ENTHUSE Award: £1104 + VAT
For more information visit: www.slcs.ac.uk/network/nac10112

This course would follow well from Teaching Science to Students with SEN at a Regional Centre. Visit www.slcs.ac.uk/network/nac10108

"The course was brilliant; I really enjoyed all the topics and came away with some great ideas. It focused my mind on inclusivity in planning and I learnt more about pupils’ needs and strategies to teach them." Participant, 2009

"I have learned new skills and acquired new knowledge and as a result feel more confident in teaching and leading design and technology.” Participant, 2010
Let’s Investigate the Outdoor Classroom

The outdoor classroom provides many opportunities to improve children’s learning in science. This course will promote outdoor enquiries that deliver the science curriculum and enrich children’s experiences. With lots of practical tips and workshops to encourage environmental activities and feedback it will help participants turn their pupils into nature detectives with outdoor learning.

Participants will be able to:
- use outdoor activities as a context to develop enquiry skills
- extend and enrich the curriculum through teaching about the environment
- support colleagues in their teaching of science in the outdoor classroom
- identify priorities and produce an action plan

Code NAC10103
Ideal for primary teachers, science co-ordinators and leaders, NQTs
Age group 4 – 11 years
Length 4 days
Course fee £662 + VAT
ENTHUSE Award £1482

Multiplied by 2. For more information visit www.slcs.ac.uk/national/nac10103

3 days face to face, 1 day online

Leading Assessment for Learning (5 – 11)

This is a practical course for primary teachers to explore strategies to make assessment purposeful and beneficial to pupil development. The course is aimed at teachers who want to develop an Assessment for Learning culture across their school. Sessions include how to embed peer and self assessment and establish a climate for learning. There will also be an opportunity to discuss the effective use of Assisting Pupil Progress (APP) to track pupil’s progress. We will explore the leadership skills required to effectively implement a change.

Participants will be able to:
- apply current research on Assessment for Learning to their classroom practice
- use a wide variety of Assessment for Learning teaching strategies to promote pupils’ learning in science
- create a climate for learning

Code NAC10140
Ideal for primary teachers, science co-ordinators and leaders, ASTs
Age group 5 – 11 years
Length 6 days*
Course fee £1013 + VAT
ENTHUSE Award £2213

For more information visit www.slcs.ac.uk/national/nac10140

You might also be interested in Assessment for Learning and Assisting Pupil Progress at a regional Centre. Visit www.slcs.ac.uk/network/10247

3 days face to face split over 2 terms, 1 day online

Communicating, Collaborating and Considering Evidence in Science

Good science learning depends on children working together to debate and discuss what is happening in investigations. This course, delivered by Anne Goldsworthy, provides many practical suggestions for developing effective interaction where children listen to each other, articulate their ideas and help each other reach common understandings. It will also give those teachers wanting to develop Assisting Pupil Progress (APP) in science a chance to develop their understanding of progression and enable children to show what they can do.

Participants will be able to:
- develop effective interaction in their school
- introduce existing science activities that show a range of learning in science
- help colleagues develop their science to enable children to be assessed using APP

Code NAC10162
Ideal for primary teachers, science co-ordinators and leaders
Age group 4 – 11 years
Length 4 days split over 2 terms
Course fee £702 + VAT
ENTHUSE Award £1532

For more information visit www.slcs.ac.uk/national/nac10162

You might also be interested in Assessment for Learning and Assisting Pupil Progress at a regional Centre. Visit www.slcs.ac.uk/network/10247

4 days split over 2 terms, 1 day online

Using ICT to Enhance Science

This course considers strategies to embed ICT in primary science. Participants will have the opportunity to explore the vast and varied resources available to support science and develop their knowledge and skills through hands-on workshops. They will look at the application of data logging, filming, blogging, sound bites, digital microscopes and learning platforms. The course also considers the moral and ethical implications of technological advancement.

Participants will be able to:
- incorporate commonly used equipment such as interactive whiteboards, communication software, data handling and photo editing software to support their science teaching
- use a variety of equipment and explore budget or funding implications in upgrading school equipment

Code NAC10165
Ideal for primary teachers, science co-ordinators and leaders
Age group 4 – 11 years
Length 3 days
Course fee £702 + VAT
ENTHUSE Award £1532

For more information visit www.slcs.ac.uk/national/nac10165

Our youngest learners are our future in science, this course, delivered by Gaynor Weaver, will take participants through the essential areas of science for young children. It will use eye catching activities that can be used in the classroom to help develop creativity in both learners and teachers.

In addition, guidance and resources will be given in learning outside the classroom and cooking effectively with young children. Each area of the science curriculum will be addressed through hands-on activities, songs, drama and games.

Participants will be able to:
- experience a range of exciting activities that demonstrate the essential elements of science for young learners in the EYFS and KS1
- implement a range of innovative, hands-on practicals
- highlight the cross curricular links in all of these activities

Code NAC10166
Ideal for primary teachers, science co-ordinators and leaders, EYFS practitioners
Age group 4 – 7 years
Length 4 days split over 2 terms
Course fee £702 + VAT
ENTHUSE Award £1532

For more information visit www.slcs.ac.uk/network/10247
Courses at all regional Science Learning Centres

The primary programme provides high quality, hands-on practical professional development opportunities linked to the aims of the network and in response to nationally set priorities. The professional development programme is delivered across the network to meet the needs of primary science subject leaders, primary and foundation stage teachers, teaching assistants and other educators involved in primary science.

Primary programme – underpinning principles
- Science is an enquiry based subject
- The context is always sound subject knowledge
- Children learn from first hand experiences
- Relevant connections are made to other subject areas
- Good science teaching and learning is an entitlement for all children
- Science is about the real world
- Functional skills are integrated – ICT, maths, literacy
- All primary educators need career-long continuing professional development in science

Science will continue to be an essential part of the primary curriculum as it is expected that schools should include an appropriate balance of focused subject teaching and well planned opportunities for cross curricular teaching.

The following programme has been informed by teachers’ needs as well as national and regional education priorities. We have learnt from last year’s programme and adapted it in response to your feedback to ensure that you get the most from your professional development episode and that it has a significant impact in your classroom. As a result, we believe we have an exciting and comprehensive programme of high quality support on offer.
Developing the Role of the Science Subject Leader

This two day course focuses on how to successfully lead science in primary schools and includes:

- defining the role of the science subject leader
- creating a science development plan for the whole school
- supporting colleagues to feel confident in their science teaching
- responding to issues arising from Ofsted inspections
- updating on current national priorities for primary science.

Participants will be asked to fill in a needs analysis survey so that these items can be prioritised over the two day courses.

Participants will be able to:

- set up and manage processes for leading science effectively
- lead change in their school

Code: 10044
Ideal for: science subject leaders, ASTs
Age group: 5 – 11 years
Length: 2 days (this course length may vary, please visit website for regional details)
Course fee: £230

For more information visit: www.slcs.ac.uk/network/10044

This course will lead well into Extending the Role of the Science Subject Leader at the National Centre. Visit: www.slcs.ac.uk/network/10106

Science across the Curriculum

“Making links between curriculum subjects and areas of learning deepens children’s understanding by providing opportunities to reinforce and enhance learning.”

DCSF Primary Framework for literacy and mathematics 2007

These network courses support teachers in making the links, and embedding scientific ideas and principles within the revised primary frameworks and primary curriculum.

Creative Cross-curricular Science

Where and how can relevant and exciting creative cross-curricular links be made? This course supports teachers in considering and planning for meaningful cross curricular links within science and explores what ‘creativity in science’ actually means.

Participants will be able to:

- locate the profile of science across the primary years through embedding science in a creative cross curricular way
- create short or medium term plans that deepen children’s understanding
- use a range of creative approaches to science

Code: 10053
Ideal for: primary teachers, science subject leaders, school senior leaders, advanced skills teachers, NQTs
Age group: 4 – 11 years
Length: 1 day
Course fee: £130

For more information visit: www.slcs.ac.uk/network/10053

This course would lead well into Creative Curriculum Design at the National Centre. Visit: www.slcs.ac.uk/network/10164

Linking Science and Design and Technology

In this course, participants will consider the unique contribution of science and design and technology to children’s learning, how to make effective connections between the two subjects and how these can be built into long and medium term planning. There will be examples of children’s work and hands-on activities to illustrate how children’s scientific understanding can be developed through designing and making activities.

Participants will be able to:

- make effective connections between science and design and technology
- use design and technology as a context to deepen children’s science understanding

Code: 10248
Ideal for: primary teachers, science subject leaders, teaching assistants, ASTs, NQTs
Age group: 4 – 11 years
Length: 1 day
Course fee: £130

For more information visit: www.slcs.ac.uk/network/10248

This course would lead well into Creative Cross-curricular Science at a regional Centre. Visit: www.slcs.ac.uk/network/10053
Moving Forward with New Curriculum Developments

This course will provide an opportunity for primary and secondary schools to consider transition with a particular focus on progression in skills and assessment. APP for science will now follow through from KS1 to KS3 using the same assessment criteria from level 1 to level 8. It is important to develop common understanding in the application of these criteria. It will allow participants to share expertise and look at ways to ensure students have the best opportunities for progression when moving between primary and secondary schools.

Participants will be able to:
- demonstrate a common understanding of evidence-based assessment
- evaluate approaches to assessment to enrich practice at both key stages
- explore opportunities presented by common assessment criteria to secure improved rates of progress for pupils from KS1 to KS2 and from KS2 to KS4

The importance of science enquiry is well documented. The network enquiry courses ensure that all primary teachers are confident to teach all types of investigation including exploration, fair test, pattern seeking, identification and classification and technological or problem solving.

Teaching, Learning and Assessment

"Where the importance of scientific enquiry is understood by teachers and managers, pupils are benefiting greatly. In schools that have shown the highest standards or the most rapidly improving standards there is a strong belief held by the co-ordinator and teachers in the engagement of pupils in scientific enquiry at the core of their work. Pupils in these schools show an enthusiasm for science that is driven by their enquiring minds and the confidence they gain in carrying out investigations."

Ofsted subject report 2007

The importance of science enquiry is well documented. The network enquiry courses ensure that all primary teachers are confident to teach all types of investigation including exploration, fair test, pattern seeking, identification and classification and technological or problem solving.

Essential Science Enquiry: Developing Investigative Skills

This course examines strategies for organizing, managing and monitoring effective scientific enquiry throughout the primary school.

Participants will be able to:
- demonstrate increased knowledge of progression and assessment in enquiry
- implement a wide range of strategies for planning, resourcing and organizing enquiry

Essential Science Enquiry: Responding to Pupils’ Ideas

"Children learn better when they are excited and engaged — but what excites and engages them best is truly excellent teaching, which challenges them and draws them what they can do."

National Primary Strategy

In this practical course participants will learn to plan for creative enquiry using children’s ideas and encouraging independent thinking in science. In a fast-paced and fun day participants will discover how to inspire children to greater involvement and enjoyment in science and unlock their creative potential.

Participants will be able to:
- incorporate children’s ideas into their science lessons
- plan for science with a creative approach

Teaching, Learning and Assessment

"Where the importance of scientific enquiry is understood by teachers and managers, pupils are benefiting greatly. In schools that have shown the highest standards or the most rapidly improving standards there is a strong belief held by the co-ordinator and teachers in the engagement of pupils in scientific enquiry at the core of their work. Pupils in these schools show an enthusiasm for science that is driven by their enquiring minds and the confidence they gain in carrying out investigations."

Ofsted subject report 2007

The importance of science enquiry is well documented. The network enquiry courses ensure that all primary teachers are confident to teach all types of investigation including exploration, fair test, pattern seeking, identification and classification and technological or problem solving.
Outdoor Learning: Stepping Outside the Classroom

Why teach outside the classroom? Experiencing the world beyond the classroom is an essential part of learning and personal development. Every experience really does matter!

This course will consider the benefits of stepping outside the classroom and give practical advice on how to plan exciting and inspiring investigations. Participants will also explore a variety of resources designed to enhance learning beyond the classroom including the Great Plant Hunt.

Participants will be able to:
- identify opportunities to enhance the teaching of science using a variety of learning environments
- plan and safe stimulating activities that take place outside the classroom

Use new and innovative resources to engage children in outdoor learning.

Code: 10060

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<tr>
<th>Age group</th>
<th>Length</th>
<th>Course fee</th>
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<tbody>
<tr>
<td>4 – 11 years</td>
<td>1 day</td>
<td>£130</td>
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For more information visit www.slcs.ac.uk/network/10060

Creating a Buzz: Exciting Science Events, Clubs and Contexts

Successful science enrichment activities motivate and encourage children of all ages and abilities. This course provides advice and practical tips for those wishing to organise science clubs/weeks or parent’s evenings, industrial visits or stalls, and stimulating contexts for science teaching and learning.

The day includes information about support and funding from a range of organisations, as well as providing ideas for themes and activities. Participants will try out stimulating investigations relating to real life issues such as the environment, business or industry.

Participants will be able to:
- make scientific enquiries challenging and exciting through activities both inside and outside the classroom
- access a range of local resources and organisations to support such activities
- generate ideas for science week or science club activities

Code: 10243

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<tr>
<th>Age group</th>
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<tr>
<td>4 – 11 years</td>
<td>1 day</td>
<td>£130</td>
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For more information visit www.slcs.ac.uk/network/10243

Science and Stories: Using Stories to Support Learning

This course explores how to enhance teaching and learning in science through stories and poems and motivate children through storytelling and drama.

Participants will explore which stories can be used with different science topics and learn how to create ‘Science Story Sacks’, using their own stories as starting points. Participants will also experience which books provide links for science discovery.

Participants will be able to:
- identify relevant stories and poems for use in science
- develop children’s collaborative working in science
- describe how science can contribute to a skills based curriculum

Code: 10056

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<tr>
<th>Age group</th>
<th>Length</th>
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<tr>
<td>4 – 11 years (or regional Science Learning Centres may offer 4 – 7 years or 7 – 11 years)</td>
<td>1 day</td>
<td>£130</td>
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For more information visit www.slcs.ac.uk/network/10056

Developing Thinking and Social Skills through Science

This course explores how science can contribute to the development of children’s learning and thinking skills as well as their ability to work collaboratively. Participants will take part in a variety of activities that can be used effectively in the classroom.

Participants will be able to:
- use a range of science based strategies to develop children’s thinking
- develop children’s collaborative working in science
- describe how science can contribute to a skills based curriculum

Code: 10246

<table>
<thead>
<tr>
<th>Age group</th>
<th>Length</th>
<th>Course fee</th>
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<tbody>
<tr>
<td>4 – 11 years</td>
<td>1 day</td>
<td>£130</td>
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For more information visit www.slcs.ac.uk/network/10246

Assessment for Learning and Assessing Pupils’ Progress

Making confident and reliable teacher assessment in primary science is challenging. Assessing Pupils’ Progress (APP) is a structured approach to periodically assessing science and enables teachers to track pupils’ progress over time. This strategy is underpinned by Assessment for Learning (AfL), which is central to effective teaching and learning. Participants will explore a range of AfL techniques, including APP and consider how this can be implemented within the primary classroom.

Participants will be able to:
- strengthen and deepen their knowledge and understanding of the importance of embedding AfL
- identify opportunities to use APP to make confident and reliable teacher assessments
- consider how to implement science APP throughout the school

Code: 10247

<table>
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<th>Age group</th>
<th>Length</th>
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<tbody>
<tr>
<td>4 – 11 years</td>
<td>1 day</td>
<td>£130</td>
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For more information visit www.slcs.ac.uk/network/10247

Scientific Play and Exploration for Young Children

Play based exercises encourage more active learning throughout the whole primary phase. This course will enable participants to plan activities that encourage and develop a range of skills in young children. Participants will try ideas for practical science that can be used with young children in Early Years Foundation Stage (EYFS) and KS1. They will identify the scientific skills that can be developed through play and explore the opportunities to promote children’s social skills as they take part in group activities.

Participants will be able to:
- plan for progression in science from the EYFS to KS1
- demonstrate the value of pupil participation
- implement a range of ideas and activities to enhance children’s early science experiences

Code: 10049

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<th>Age group</th>
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<tbody>
<tr>
<td>3 – 7 years</td>
<td>1 day</td>
<td>£130</td>
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For more information visit www.slcs.ac.uk/network/10049

You might also be interested in Science and Stories: Using Stories to Support Learning at a regional Centre Visit www.slcs.ac.uk/network/10243

Teaching, Learning and Assessment
Welcome to the Science Learning Centre East of England

As part of a national network of Science Learning Centres we provide inspiring, innovative and high quality CPD for all those involved in science, maths and design and technology education. Over the six years since we first opened our doors thousands of teachers, tutors, lecturers, technicians and teaching assistants in the East of England have engaged in professional development here at the Centre, in venues around the region and increasingly at tailored events in schools. I am sure that everyone involved in science education in the region will find something irresistible for their professional development in the coming year.

Alison Redmore
Director, Science Learning Centre East of England

Our Objectives
The Science Learning Centre East of England prides itself on holding three core goals:
- To offer high QUALITY professional development
- To REACH as many professionals as possible working in STEM education in the East of England
- To INFLUENCE the decision makers and those involved in determining strategy in STEM education

We have a comprehensive programme covering a wide range of themes. The CPD on offer reflects the needs identified by many local authorities, schools and teachers in our region, as well as those identified by the government’s national priorities. This is a time of change for primary science and the Science Learning Centre East of England has a full programme of courses to support subject leaders and teachers. Whether you are looking to develop your skills in subject leadership or teacher assessment including using APP, are seeking support in implementing developments in the curriculum, or want to hone your own subject specific skills, we will be able to offer you support.

We are privileged to work with over 30 satellite partner schools, most of which contribute to course development and delivery as well as hosting courses. Our partnership gives broad coverage to the region as a whole and we are very grateful for their help in ensuring the success of our CPD programme.

Our Centre
Our Centre at the University of Hertfordshire, Bayfordbury, is an exceptional environment for training. We have two fully equipped laboratories, an auditorium and the University of Hertfordshire observatory, and can provide facilities for meetings and conferences as well as fieldwork and ecology days. The site offers outstanding opportunities for exploring outdoor learning and biodiversity, with a range of habitats set within beautiful grounds.

Our Team
Our large team of presenters is led by Jane Turner, Lynda Homer and Heather Gilbertson. Our courses are delivered by well known CPD providers and expert teachers. We also have close relationships with our local authorities to offer further training opportunities to teachers and support staff.

For further details about any of our activities please contact us: 01992 503 498  |  enquiries@eastengland.slcs.ac.uk  |  www.slcs.ac.uk/ee

See page 12 for tailored CPD for schools and clusters, and page 8 for information about funding.
Astronomy and Space CPD for Primary

This course is ideal for teaching space topics in primary education with an effective, hands-on way of achieving the wow factor. It incorporates a variety of practical and ICT activities designed to enhance teaching of Earth in space in KS2 without the need for trips, complicated equipment or in-depth knowledge of astronomy. We will discuss the potentials of a portable planetarium and the Bradford Robotics Telescope.

Participants will be able to:
- use the resources
- identify flora and fauna with an expert
- find out about new activities for their classroom

Code: EEC10102
Ideal for: primary teachers of KS2
Age group: 5 – 11 years
Length: half day 1.00pm to 3.30pm
Course fee: £130

For more information visit www.slcs.ac.uk/network/ee10102

Nature Detectives

Phenology, the science of recording natural regularly occurring events, already provides some of the longest written biological records in Britain. Children can add to this vital scientific data, while learning about the wildlife and habitats close to their school.

The Woodland Trust Nature Detectives and Nature’s Calendar websites are fantastic resources for teaching and learning about habitats and adaptation.

Participants will be able to:
- use the resources
- identify flora and fauna with an expert
- find out about new activities for their classroom

Code: EEC10100
Ideal for: primary teachers
Age group: 8 – 11 years
Length: half day 1.00pm to 3.30pm
Course fee: £50

For more information visit www.slcs.ac.uk/network/ee10100

Bedfordshire and Chilterns Primary Science Conference

This conference for primary teachers focuses on science in the changing primary curriculum. It includes Assessment for Learning and APP, science within Essentials for Learning and Life, science and design and technology. Contributors include consultants from Bedfordshire, Science Learning Centre East of England and Millgate House Education.

Participants will be able to:
- have confidence in understanding APP and assessment in science
- make connections between science and design and technology
- describe how science can contribute to a skills-based curriculum
- construct an action plan identifying their future plans as a result of the conference

Code: EEC10104
Ideal for: primary teachers and science co-ordinators
Age group: 4 – 11 years
Length: 1 day
Course fee: £160

For more information visit www.slcs.ac.uk/network/ee10104

Implementing Assessing Pupils’ Progress

Assessing Pupils’ Progress is a structured approach enabling teachers to make judgements about pupils’ attainment and plan next steps. This course demonstrates how science enquiry provides opportunities to collect a broad range of evidence for review against assessment criteria.

Participants will design activities covering a range of assessment focuses and make an action plan for their school.

Participants will be able to:
- identify opportunities for APP using science enquiry activities
- consider the evidence required for periodic review before making judgements about attainment
- plan activities which provide opportunities to collect assessment evidence

Code: EEC10340
Ideal for: science subject leaders
Age group: 5 – 11 years
Length: 1 day
Course fee: £130

For more information visit www.slcs.ac.uk/network/ee10340

We offer all the regional courses that are listed in the programme, starting on page 34
Welcome to the Science Learning Centre

Our new, exciting programme is more comprehensive than ever with a range of courses offering the very best CPD across the region. We hope our courses will continue to enhance the teaching and learning of science at all key stages. Our courses are always well received and complement those on offer at other regional Science Learning Centres as well as those run by the National Science Learning Centre in York.

During the past year, 98% of all participants on our courses have rated them as being ‘good’ or ‘very good’ and our aim is to maintain or exceed this high standard in the coming year.

Our team look forward to welcoming you to our courses very soon.

Phil Hingley, Researcher, a former languages teacher, conducts a range of research activities into the impact of our courses.

Elaine Hodkin, Regional Liaison and Project Officer, is responsible for liaising with schools, particularly for the Triple Science Support Programme, Stimulating Physics Network and Impact Awards.

Nicky Jarvis, Senior Clerk, is the first point of contact for accounting and finance matters. Nicky also provides administrative support on a range of Centre activities.

Stephen Rice, Computer Officer, manages and develops a wide range of ICT and audio visual provision to support tutors and course delegates.

For further details about any of our activities please contact us: 0116 252 3771 | slcem@le.ac.uk | www.slcs.ac.uk/em

See page 12 for tailored CPD for schools and clusters, and page 8 for information about funding.

Sue Bull, Director, taught secondary science in Warwickshire, holding several positions of responsibility, and worked for a leading CPD provider organising courses and conferences for teachers and students.

Claire Simpson, Deputy Director, has a background in secondary science and taught in Leicestershire. She had responsibility for CPD coordination, working closely with PGCE and GTP students and teachers.

Jan Bayliss, Course Administrator, is the first point of contact for customer enquiries and course delegates and welcomes everyone when they arrive in Leicester.

Stephen Rice, Computer Officer, manages and develops a wide range of ICT and audio visual provision to support tutors and course delegates.
Using ICT to Support and Enhance Science Teaching at KS1 and KS2

An innovative day dedicated to the role that ICT can play in the teaching and learning of science at Key Stages 1 and 2. The course will incorporate an exciting range of hands-on activities including:

- using interactive whiteboards and whole class pedagogy
- using internet resources creatively in science
- datalogging
- opportunities to explore new equipment such as digital cameras and electronic microscopes

Participants will be able to:

- explore the use of ICT to enhance science in the primary classroom
- gain confidence in using a range of ICT applications
- develop enhanced ICT skills

Code: EMC08106
Ideal for: primary teachers, science co-ordinators and leaders
Age group: 7 – 11 years
Length: 1 day
Course fee: £130

For more information visit: www.slcs.ac.uk/network/emc08106

Made You Look! Made You Think! Made You Talk!

This one day course will provide a series of simple, effective activities to help young children look, think and talk about what they see in their science lessons.

Participants will be able to:

- explore the importance of developing young children’s observational and communication skills
- develop a range of activities guaranteed to put the ‘wow’ factor into their lessons
- practice a wide variety of thinking skills and ALL strategies that enhance each activity and reveal clear evidence of thinking and learning

Code: EMC09105
Ideal for: primary teachers, science co-ordinators and leaders
Age group: 4 – 5 years, 5 – 7 years
Length: 1 day
Course fee: £130

For more information visit: www.slcs.ac.uk/network/emc09105

Gi  fted and T alented in Science Across the Primary  Years

Has the school identified those pupils who are gifted and talented in science? Does the school have a programme to meet their needs and are teachers offering creative activities to challenge those children who are very able or exceptional in science?

In this course participants will be helped to do these things and more, including developing a range of approaches and strategies to develop higher order thinking and offer enrichment and enhancement activities in science.

Participants will be able to:

- develop a range of approaches and strategies to develop higher order thinking
- develop strategies to identify gifted and talented pupils
- gain confidence in developing creative activities to challenge pupils

Code: EMC08108
Ideal for: primary teachers, science co-ordinators and leaders
Age group: 4 – 11 years
Length: 1 day
Course fee: £130

For more information visit: www.slcs.ac.uk/network/emc08108

Science on a Shoestring

This exciting day will provide ideas for using easily obtainable and cost effective resources in practical and investigative science.

A range of hands-on activities will be covered, such as the science of popcorn, the stickiness of earwax and the strength of tissues plus many more! Many of the activities have curriculum links, and others will be of use for enrichment and extension work. The science behind the activities will be discussed and explained.

Participants will be able to:

- gain confidence in using a range of easily obtainable resources to enhance lessons
- gain an awareness of exciting activities for enriching and extending science lessons
- practice a range of hands-on activities

Code: EMC08109
Ideal for: primary teachers, science co-ordinators and leaders
Age group: 7 – 11 years
Length: 1 day
Course fee: £130

For more information visit: www.slcs.ac.uk/network/emc08109

We offer all the regional courses that are listed in the programme, starting on page 34
Welcome to the Science Learning Centre London

Our Objectives
Science Learning Centre London has been working with primary teachers in London for six years now and in that time we have offered many training days supporting the teaching of science. We want to offer you professional development that is effective and inspiring at a time and place to suit you. We aim to meet the needs of you and your school but also enable you to explore beyond the curriculum so that you in turn can motivate your children. In this way we hope to give you the knowledge and the confidence to develop and enrich your teaching.

Coming to the Centre and taking a day out of school for CPD gives you the chance to choose a course to meet your own needs and the space to reflect on your individual development. You can meet other teachers from many different types of schools as well as enjoying our quality teaching rooms with all refreshments provided. Where other venues can enrich a course, we hold it off-site, for example at the Science Museum. The outreach option gives you and your colleagues the chance to focus the course on the needs of your school and choose a time and date to suit you, and particular courses work very well in this model. Assessment for Learning gives the whole department an opportunity to develop a consistent approach and enhance skills in APP. Moving Forward with New Curriculum Developments enables primary schools to work with local secondary schools focusing on progression and transition in science.

Our Region
We believe London is an exciting place for science and the region also has the advantage of covering a small geographical area with excellent transport links making our Centre accessible to all London teachers.

Sally Johnson
Director, Science Learning Centre London
Biodiversity: Education for Life - Science Learning Centre London 6th Anniversary Celebration

The event celebrates Science Learning Centre London’s 6th Anniversary and is offered in collaboration with the Natural History Museum and the Zoological Society, London. A team of experts in biodiversity will each give a short presentation about an ecosystem at risk and the importance of maintaining it. This will be followed by a panel discussion and questions. There will also be a showcase of organisations that have produced resources for the International Year of Biodiversity.

Participants will be able to:
- reach a better understanding of the importance of maintaining biodiversity
- be more aware of the International Year of Biodiversity and associated resources and CPO
- have a set of case studies for teaching about biodiversity

Code: LNE10502
Ideal for: primary teachers, secondary teachers
Age group: 5 – 19 years
Length: twilight
Course fee: no charge to participants

Teaching Science in the Early Years and KS1

This course explores how creative approaches can be used in science in the classroom. Participants will share ideas and try out activities which give children first-hand experience of exploration, observation and problem solving. They will also have the opportunity to see how the Science Museum can support the learning of science and literacy at Foundation Stage and KS1.

Participants will be able to:
- explore a range of activities for the classroom
- develop strategies to encourage young children to think, explore, observe and problem solve
- evaluate new resources
- discover how the Science Museum can enhance learning

Code: LNC10111
Ideal for: primary teachers, teaching assistants
Age group: 4 – 7 years
Length: 1 day
Course fee: £130

For more information visit: www.slcs.ac.uk/network/lne10502

Experiencing Nature: Strategies for Engaging the SEN Child

It has been shown that connecting with the natural world can bring social, emotional and cognitive benefits to primary aged special needs learners. Participants will learn about some approaches that have created positive impacts on children’s academic progress. Through practical activities and discussion they will have the chance to reflect on how they could use such approaches with special needs learners.

Participants will be able to:
- identify approaches for creating multiple opportunities to engage learners with special needs
- evaluate science projects that provide dynamic sensory experiences for the SEN child
- reflect on how they model and provoke language and questioning in their classes
- recognise and record moments of engagement

Code: LNC10236
Ideal for: primary teachers, science co-ordinators and leaders, teaching assistants
Age group: 4 – 11 years
Length: 1 day
Course fee: £130

We offer all the regional courses that are listed in the programme, starting on page 34

For more information visit: www.slcs.ac.uk/network/lnc10111
For more information visit: www.slcs.ac.uk/network/lnc10236

For more information visit: www.slcs.ac.uk/network/lne10502
Welcome to the Science Learning Centre North East

It was back in January 2005 that Science Learning Centre North East ran its first professional development course: ‘Nature Detectives’. Over five years later, thousands of primary teachers and teaching assistants in the North East have engaged in professional development at the Centre, in venues around the region and increasingly at tailored events in schools.

A wide range of support is available through the Science Learning Centre, from practical resources through our Kit Club to Inspiring Science events for teachers and pupils. We work on the expertise of our own staff, regional and national specialists, and scientists.

Science Learning Centre North East also supports several other projects relating to science education in the region, including Christmas Lectures, Inspiring Science, Kit Club and the Climate Change Schools Project.

Please see www.slc.ac.uk/ne for the full range of primary professional development courses offered.

Our Centre

Our Centre is extensively resourced to support all phases and aspects of science education. The high specification facilities include a fully equipped science laboratory, flexible learning spaces and a café area. Comprehensive IT support is available including the ability to video conference. There are additional features such as a wind turbine, solar panels, liquid gel flooring that changes colour when pressure is applied and rainwater recycling.

The Centre is also available for hire (in part or in full) and the facilities are suitable for seminars, conferences, meetings, professional development days and team building events. You can take a virtual tour of the Centre on our website. Please contact us for details of availability and rates.

Enrichment and Engagement

Science Learning Centre North East also supports several other projects relating to science education in the region, including Christmas Lectures, Inspiring Science, Kit Club and the Climate Change Schools Project.

Please see www.slc.ac.uk/ne for the full range of primary professional development courses offered.

Our Team

Dr Sally Preston, Director

Originally trained in scientific research, Sally gained a doctorate degree before training as a chemistry teacher. She has significant experience of science teaching and education, and developing and leading professional development. She has held several posts in senior management and has been involved in Science Learning Centre North East since its inception.

Deborah Herridge, Primary Professional Development Leader

Deborah leads our primary professional development programme working closely with other members of the team to support professional development for teachers, teaching assistants and other support staff. Deborah came to teaching after working in a range of organisations. She has taught science in primary and secondary schools both in the UK and abroad and has recently been awarded Chartered Science Teacher status. Deborah is the author and series editor of Heinemann’s Assessing Pupils’ Progress in Science’ and she writes regular articles on science for ‘Teach Primary’ magazine. She has a particular interest in cross-curricular science and in learning outside of the classroom.

Janet Barnett, Primary Professional Development Assistant

Janet has been seconded from a local primary school to support Deborah in developing and delivering our primary programme. With a degree in chemistry, Janet has over 13 years experience as a science coordinator and has worked to support science in all the primary key stages.

For further details about any of our activities please contact us: 0191 370 6200 | slc.northeast@durham.ac.uk | www.slc.ac.uk/ne

See page 12 for tailored CPD for schools and clusters, and page 8 for information about funding.
Tackling the Tricky AFs: Using Models and Analogies in Primary Science

This course will consider the implications of the APP Assessment Focus (AF) ‘Thinking Scientifically’, which makes a range of demands on the teacher and pupils from representing things in the real world using simple physical models to explaining processes or phenomena.

Participants will be able to:
- develop an understanding of APP AF1 and how it can be assessed
- be introduced to a range of models and analogies that can be used to scaffold children’s understanding
- develop understanding of how models and analogies can be used in science lessons and cross-curricular topics eg Egyptians
- go away with ideas for activities

Code: NER10407
Ideal for: EYFS practitioners, primary teachers, science subject leaders
Age group: 4 – 11 years
Length: 1 day
Course fee: £130

Pencil Free Assessment in EYFS and KS1

How do you know what your children think? Can you find out without ‘the test’? We think so and this dynamic and active course provides strategies and activities to assess children’s thinking and learning in the early years and KS1 without traditional paper and pencil methods.

Participants will be able to:
- develop effective methods for finding out what children know and can do before starting a science topic
- support children’s progress in scientific enquiry in EYFS and at KS1 eg teacher questioning and feedback, pupil self and peer assessment and target setting
- use level descriptors to assess children’s progress and set targets for next steps
- develop child friendly methods of assessing science

Code: NER10409
Ideal for: EYFS practitioners, primary teachers, science subject leaders
Age group: 4 – 11 years
Length: 1 day
Course fee: £130

Planning Science in a Revised Curriculum

This course is ideal for supporting teachers in planning science within the context of curriculum change.

Participants will be able to:
- develop their curriculum knowledge and the implications for teaching and learning in new areas of learning
- develop their understanding of how to plan science and make useful cross-curricular links in topics
- experience a range of resources to support science and the curriculum
- plan their own topics with access to support for ideas and resources
- understand the relationship between curriculum change and APP for primary science

Participants will be able to:
- experience a range of fieldwork techniques from Foundation stage to year 6
- carry out a number of activities and consider how they link to new areas of learning
- consider how to plan activities into topics
- develop approaches to support children to work independently when carrying out fieldwork techniques
- use computer sensors and other ICT equipment as part of field work activities

Code: NER10407
Ideal for: EYFS practitioners, primary teachers, science subject leaders
Age group: 4 – 11 years
Length: 1 day
Course fee: £130

Code: NER10409
Ideal for: EYFS practitioners, primary teachers, science subject leaders
Age group: 4 – 11 years
Length: 1 day
Course fee: £130

Science Fieldwork in Your School Grounds

Whatever the setting, teachers can get out of the classroom and have some creative and inspiring science in their school grounds. Weather permitting some of this day will be outside, so participants need to wear appropriate clothing.

Participants will be able to:
- develop an understanding of APP AF1 and how it can be assessed
- be introduced to a range of models and analogies that can be used to scaffold children’s understanding
- develop understanding of how models and analogies can be used in science lessons and cross-curricular topics eg Egyptians
- go away with ideas for activities

Code: NER10407
Ideal for: EYFS practitioners, primary teachers, science subject leaders
Age group: 4 – 11 years
Length: 1 day
Course fee: £130

Code: NER10409
Ideal for: EYFS practitioners, primary teachers, science subject leaders
Age group: 4 – 11 years
Length: 1 day
Course fee: £130

For more information visit:
www.slcs.ac.uk/network/ner10407

For more information visit:
www.slcs.ac.uk/network/ner10409

We offer all the regional courses that are listed in the programme, starting on page 34
Welcome to the Science Learning Centre North West

We are proud to be part of the network of 10 Science Learning Centres across the country providing high quality, innovative and inspiring continuing professional development for all those involved in science education.

The Centre has already delivered over 9000 CPD days, working with over 3500 teachers, tutors, technicians and teaching assistants across 50 venues to help them deliver exciting and inspirational science lessons to their students. In addition to the core programme, the Centre leads and supports a range of school networks and clusters, where CPD is planned alongside teachers in their schools to meet their professional development needs.

Amanda Smith
Director, Science Learning Centre North West

Our Objectives
No matter what your starting point we will help you to work towards providing a world class contemporary science education for your pupils.

Science and technology are crucial to the success of the North West. The Science Learning Centre North West is working to harness the diverse resources of the region to deliver inspiring and innovative professional development to teachers, tutors, teaching assistants and technicians, from primary to post-16.

Science Learning Centre North West is provided by Manchester Metropolitan University, via its specialist facility in Manchester and over 50 venues around the region. We work closely with local authorities, HE institutions, industry, museums, the Association for Science Education, specialist schools and other partners to develop and deliver our CPD programme.

Our Centre
At the Science Learning Centre North West you will find:

- a quality assured core programme of professional development courses across the 5 – 19 age range
- support for all science specialisms, practical work, How Science Works, out of school learning, Assessment for Learning, subject leadership and STEM subjects working together
- tailor made CPD sessions for departments, schools, clusters and LAs
- opportunities for schools to contribute their good practice to course development and delivery
- a programme informed by research, best practice and effective use of ICT
- a programme provided by a highly expert team of experienced trainers, close to the needs of schools and colleges
- specialist science facilities where schools and partners can meet and learn together

Our Team
The Science Learning Centre North West comprises a highly expert team of experienced trainers across the 5 – 19 age range.

Primary Professional Development Leaders: Debbie Eccles and Kate Blacklock

Secondary Professional Development Leaders: Amanda Smith (Director), Dawn Jones (Assistant Director) and Rita Smith (KS3 and KS4 Professional Development Leader)

14 –19 Professional Development Leader: Debbie Leyland (Assistant Director)

In addition, quality assured, specialist trainers work alongside the Centre’s administrative team who deal with all aspects of enquiries, bookings and customer care.

For further details about any of our activities please contact us: 0161 247 2944 | slc.northwest@mmu.ac.uk | www.slcs.ac.uk/nw

See page 12 for tailored CPD for schools and clusters, and page 8 for information about funding.
### Primary Science Subject Leader Annual Update

This course aims to provide updates for science co-ordinators and subject leaders from a variety of sources. This year the update will cover and address issues for science in the context of the changing curriculum, Ofsted, QCA, Assessment for Learning and APP in science as well as innovative ideas and activities to use back in school.

Participants will be able to:
- be updated on the latest developments in primary science
- gain greater understanding about the future of primary science
- use practical activities and ideas to take back to school

**Code** NWN10109  
**Ideal for** science co-ordinators, subject leaders  
**Age group** 4 – 11 years  
**Length** 1 day  
**Course fee** £135

For more information visit [www.slcs.ac.uk/network/nwn10109](http://www.slcs.ac.uk/network/nwn10109)

### Leading Science in Changing Times

This full-day course aims to provide opportunities to update primary science subject leaders on the latest in primary science education. Changes in the curriculum and areas of learning, Ofsted news, Assessing Pupils’ Progress, the latest science news as well as other topics will be covered throughout the day. There will also be an opportunity to try practical science activities that can be used once back in school.

Participants will be able to:
- receive an update on the latest development in primary science
- gain greater confidence about leading the subject in their school
- use practical ideas and activities to take back to school

**Code** NWN10121  
**Ideal for** science co-ordinators, subject leaders  
**Age group** 4 – 11 years  
**Length** 1 day  
**Course fee** £135

For more information visit [www.slcs.ac.uk/network/nwn10121](http://www.slcs.ac.uk/network/nwn10121)

### How Science Works for Primary Schools

This course aims to develop teachers’ understanding of How Science Works in the curriculum. Throughout the day ideas which focus on creating opportunities for children to develop the more practical scientific skills of investigation will be explored. Progression in the How Science Works Attainment target and the use of the APP Materials will also be explored.

Participants will be able to:
- gain a greater understanding of How Science Works
- experience a range of practical activities

**Code** NWN10122  
**Ideal for** science co-ordinators, primary teachers  
**Age group** 7 – 11 years  
**Length** 1 day  
**Course fee** £135

For more information visit [www.slcs.ac.uk/network/nwn10122](http://www.slcs.ac.uk/network/nwn10122)

We offer all the regional courses that are listed in the programme, starting on page 34
Welcome to the professional development programme for 2010/11 for the Science Learning Centre South East. The forthcoming year signals a broad range of new developments in the primary curriculum, and as ever, effective and inspiring professional development for primary science designed to update and enhance practice remains at the core of our mission. As part of our continuing desire to ensure we reach all educational staff, we have recently launched our Primary Outreach Programme where we are able to bring our most popular primary science courses to your school or to a cluster of schools in your area. With the expected Impact Awards available, these courses can be delivered at a location and time to suit your needs:

- Developing the Role of the Science Subject Leader
- Creative Cross-curricular Science
- Linking Science and Design and Technology
- Moving Forward with New Curriculum Developments (KS2 to KS3)
- Scientific Play and Exploration for Young Children (age 3 - 7 years)

Dr Janice Griffiths, Director, Science Learning Centre South East

Our Objectives

The Science Learning Centre South East works across the south east in collaboration with partners to provide exciting and inspiring professional development for all primary school teachers and teaching assistants. We believe that effective practice in the classroom is key to inspiring the next generation of scientists and engineers.

Our Region

The South East is a vibrant and multi-faceted region. In addition to being the largest manufacturing region in the UK, it has one third of the country’s areas of outstanding natural beauty. We work with partners across the region to highlight the importance of science, technology, engineering and maths to the economy and to encourage the uptake of related subjects in further and higher education and careers; teachers initiate this process.

We work closely with some of the world’s leading institutions to provide professional development including HE Institutions, Kew, the Rutherford Appleton Laboratory, the National Oceanography Centre, industries including Pfizer UK and EADS Astrium, science centres, museums and many others. By bringing together partners such as STEMNET, National Centre for Excellence in the Teaching of Maths, Design and Technology Association, Learned Bodies and others, we enrich and enhance the impact of our CPD.

Our team

We have a small team of experienced staff based in the University of Southampton. We combine skills in course design, planning and delivery, project management, technical support, and business and administration. Staff have wide experience of teaching, and also have backgrounds in research and industry. We draw on a wide range of experienced CPD deliverers across the south east, carefully matching skills and expertise to courses. Our network-wide quality assurance model ensures a consistent quality of delivery and impact.

The University of Southampton itself is a world leader in science and engineering education. We are able to draw on this expertise for our professional development activities. Ian Galloway, Deputy Director at the Centre, is Director of Education for the Bloodhound SSC (supersonic car) project. Bloodhound is an example of a ‘true’ STEM project with the aim of inspiring the next generation of scientists and engineers.

We offer all the regional courses that are listed in the programme, starting on page 34.
Welcome to the Science Learning Centre South West

Science Learning Centre South West is a unique partnership between At-Bristol, the University of Bristol and the University of Plymouth. The strengths of our partner institutions cement first rate professional development opportunities, educational expertise and access to the science research community.

Our high quality professional development courses are delivered in a number of venues across the South West region, as well as being available as tailored courses to be delivered in your school. This prospectus gives an overview of what is on offer, but please do contact the Centre for further information and to discuss your school’s specific needs.

We look forward to working with you.

Bryan Berry
Director, Science Learning Centre South West

Our Objectives
Science Learning Centre South West provides inspiring professional development for those involved in science education across the South West. We aim to:

- refresh and energise your understanding and enthusiasm for science
- assist you in transferring contemporary science techniques and resources to the classroom
- train you in the use of new teaching and learning techniques and keep you abreast of current pedagogical thinking in science education
- cultivate a consistent focus on student learning of science in order to ensure that achievement is maximised
- develop your ability to lead whole-school development in science teaching and assessment

Our Centre
We are based within At-Bristol on Bristol’s historic Harbourside. At-Bristol is one of the UK’s most exciting science discovery centres and is a centre of excellence for active discovery based learning and dialogue about science in society. As the lead partner in the Science Learning Centre South West consortium its primary objective is to advance the education of the public in science, technology, natural history and the environment. It delivers innovative and inspiring science and technology learning opportunities through hands-on interactive exhibits, workshops, activities, websites and special events, to deliver its mission of ‘making science accessible to all’.

Science Learning Centre South West is based on the first floor of At-Bristol and offers a highly stimulating, inviting environment, different from a school or university space. Science educators visiting the centre have access to first class teaching and laboratory facilities, as well as the exhibition spaces featuring hands-on activities and the very latest multimedia technologies.

We will be running a Primary Science in a Changing Curriculum conference in the spring term with Anne Goldsworthy as our keynote speaker. Look out for details on our website www.slcs.ac.uk/sw. This promises to be a truly inspiring day.

Our Team
We are an experienced and friendly team of science educators and administrators and together we will be able to support you in planning for your professional development needs. Our primary programme is led by Allie Beaumont, formerly an AST for science. Allie is supported by experienced practising teachers from the South West.

For further details about any of our activities please contact us, 0117 915 7257 | info@slcs.ac.uk | www.slcs.ac.uk/sw

See page 12 for tailored CPD for schools and clusters, and page 4 for information about funding.
Made You Look!
Would you like to provide your pupils with captivating activities that encourage them to look carefully, think about what they have seen and then talk about it?

Presented by the author Gaynor Weavers, this course is based around activities and strategies described in a new publication, Made You Look!, which describes an innovative approach to developing children’s observational, science and thinking skills.

Participants will be able to:
- develop a series of simple, effective activities to make their pupils look, think and talk about what they see in their science lessons.
- receive a copy of the book and accompanying CD ROM.

Out of the Classroom, Into the Sea
This course will encourage primary teachers to use a marine focus for curriculum teaching and make use of local shore and aquarium resources to enrich the teaching of science and explore cross-curricular links. The morning session will be held at the National Marine Aquarium and the afternoon will be at a local seashore, where participants will learn how to run their own ‘seashore safaris’.

Participants will be able to:
- explore ways to use the marine environment to inspire and engage pupils in many areas of the curriculum with an emphasis on science.
- run meaningful visits to aquariums and conduct outdoor learning sessions on the seashore.

Creative Teaching and Learning Techniques in Primary Science
This course will look at a variety of activities that support teaching and learning and provide opportunities for children to develop their thinking skills. Participants will consider the links between effective assessment, teaching and learning and provide examples of how practical ideas and activities can be used in assessment and planning of future scientific learning.

Participants will be able to:
- gain a better understanding of the thinking skills that pupils need to be better thinkers and learners.
- take away resources that they can use immediately with their class to help pupils develop their thinking skills.
- provide their pupils with increased enjoyment and engagement at KS2.

We offer all the regional courses that are listed in the programme, starting on page 34.
Welcome to the Science Learning Centre West Midlands

Welcome to the Science Learning Centre West Midlands primary programme for the academic year 2010/11. As part of the national network of Science Learning Centres we provide effective, inspirational and innovative continuing professional development for all those involved in science education. Since we opened in 2005 we have worked with thousands of teachers and they affirm that our work is effective and has an impact in the classroom.

Science remains at the heart of our programme and it has been designed to develop your subject knowledge, understanding and skills, whether you are a subject co-ordinator, an experienced teacher or new to the profession, or a classroom support assistant.

We draw on the expertise of teachers, the network professional development staff, regional and national specialists and scientists to provide a rich and inspiring programme which will enable you to teach science with confidence and enthusiasm.

I look forward to working with you in the coming year

Jo Flynn
Director, Science Learning Centre West Midlands

Our Satellite Network

As we are situated to the north of the West Midlands region, we work closely with all of our regional partners to maintain a network of satellite organisations and venues. This network consists of a range of partner specialist science schools, sites of industry, colleges, other universities and inspirational museums such as Thinktank in Birmingham, Enginuity in Coalbrookdale and RAF Cosford. Our satellite network enables us to provide CPD across the region and where it is needed.

Our Centre

The Science Learning Centre West Midlands is located at Keele University, with historic Keele Hall and set within the beautiful woodland and lakes which characterise the 600 acre green campus. We are part of the Faculty of Natural Sciences and work closely with the research scientists and the education communities within the university. The Science Learning Centre West Midlands is a fantastic space for a staff away day, meeting or conference.

Our Team

We are an experienced and friendly team of science educators and administrators and together we will be able to support you in planning for your professional development needs.

For further details about any of our activities please contact us: 01782 734 429 | enquiries@slcwm.keele.ac.uk | www.slcs.ac.uk/wm

See page 12 for tailored CPD for schools and clusters, and page 8 for information about funding.
Implementing Assessing Pupils’ Progress

Assessing Pupils’ Progress is a structured approach enabling teachers to make judgements about pupils’ attainment and plan next steps. This course demonstrates how science enquiry provides opportunities to collect a broad range of evidence for review against assessment criteria. Participants will design activities covering a range of assessment focuses and make an action plan for their school.

Participants will be able to:
- identify opportunities for APP using science enquiry activities
- consider the evidence required for periodic review before making judgements about attainment
- plan activities which provide opportunities to collect assessment evidence

For more information visit www.slcs.ac.uk/network/wmc10105

Regional Primary Science CPD Conferences

This highly popular regional conference is organised in partnership with the Association for Science Education and local authorities to give access to the most up-to-date information and research into primary science education. Programmes will include keynotes from leading primary science experts, and workshops by consultants and local leading teachers, to provide modelled examples of planning and practical activities to try in the classroom.

Participants will be able to:
- implement recent developments in primary science
- experience a range of activities illustrating creative approaches to teaching science
- share experiences and ideas with colleagues in their region

For more information visit www.slcs.ac.uk/network/wmc10114

Science Through Games

Good games are known to motivate and promote effective learning. Plenty of these games teach children about the content of science but nothing to help them learn and develop science enquiry skills. Sample the delights of The Fair Test Scramble, Repeat Readings Bullybee, Table Talk and find out how these games relate to the progression of science skills. This course provides many excellent and fun revision ideas to use prior to science tests. It is suitable for those teaching at KS2 who are working at levels 3, 4 and 5, but all are welcome to come and join the fun and take away great ideas for the classroom.

Participants will be able to:
- experience games and activities that can be used within the classroom to reinforce scientific enquiry skills and engage learners
- implement an innovative teaching and learning approach and appreciate how such games can provide effective learning opportunities for pupils

For more information visit www.slcs.ac.uk/network/wmc10108

Puppets, Talking Science, Engaging Science

This course explores the potential value of using puppets in science teaching in order to promote the engagement of children. It is based on substantial research which shows the positive impact that puppets can have on both children and teachers.

All participants receive a free ‘Puppets’ resource kit containing puppets for their age range, a storybook, animated CD and guidance on using puppets and stories effectively.

Participants will be able to:
- develop their hands-on experience of using puppets
- create more opportunities for children to develop their thinking
- motivate and engage children, especially those that may otherwise be largely silent in class

For more information visit www.slcs.ac.uk/network/wmc10106

We offer all the regional courses that are listed in the programme, starting on page 34
Welcome to the Science Learning Centre Yorkshire and the Humber

We are proud to offer you and your school a stimulating and inspiring CPD programme for 2010/11. The programme has been designed to meet your needs, school priorities and national directives. With five years of experience behind us we are confident that we can deliver these requirements through engaging professional development opportunities which are relevant to your context and help you to inspire young people to embrace science as a subject and as a potential career pathway.

Science Learning Centre Yorkshire and the Humber has grown over the years and now delivers over 150 CPD courses and programmes each year to science teachers, tutors, technicians and other professionals in schools and colleges.

The strength of science in our schools lies within the skill, knowledge and creativity of teachers. We strongly believe that access to a high quality, innovative CPD is a major factor to maintaining a motivated and skilled workforce of professionals in our schools. Our aim is simple - we provide the opportunity for you and your school to develop the curriculum and teaching your learners deserve.

John Wardle, Julie Jordan
Co-Directors, Science Learning Centre Yorkshire and the Humber

Our Region
Yorkshire and the Humber is a diverse region and its schools reflect this diversity. We have examples of very high achieving schools and certainly a number of world class universities in the region. However we are not without challenges and the region does have areas of social and economic hardship which may contribute to lower than average attainment as a region. The region faces challenges in skill shortages which places science and other STEM subjects high on the agenda. No one organisation or institution can solve these problems but by focusing on providing a stimulating and enjoyable science curriculum for all children which is relevant to all these needs, we can make a significant contribution. The Science Learning Centre Yorkshire and the Humber works in partnership with local authorities, the Association for Science Education, National Strategies, specialist schools, universities, STEMNET and other organisations to make this happen.

Our Centre
Our programme is delivered at the Science Learning Centre in Sheffield, across the region in high quality outreach venues and in your own school as a tailored offer. The Science Learning Centre, based at Sheffield Hallam University, has excellent training facilities, including two laboratories, and is well placed for travel with excellent public transport links and easy road access to motorways. Science Learning Centre Yorkshire and the Humber is part of the Centre for Science Education at Sheffield Hallam which gives us a unique link with leading curriculum development and research teams providing an added dimension to our programmes.

Our Team
The CPD programme is designed, managed and delivered by a small team of highly experienced professional development leaders, working in collaboration with regional and national CPD providers and organisations. Our professional development leaders have extensive teaching experience and understanding of the issues and challenges facing teachers. This challenging but rewarding work is supported by an enthusiastic and skilled business and technical support team. We guarantee a friendly, knowledgeable and professional approach to CPD from the team. We have a wide network of quality assured trainers who also contribute to our courses; these include science education specialists and research scientists where appropriate.

We look forward to working with you during the next year, not only to inspire our future scientists and technologists but to interest and excite all young people in science.

For further details about any of our activities please contact us: 0114 225 4891 | enquiries@yorkshibemer.slcs.ac.uk | www.slcs.ac.uk/yh
See page 12 for tailored CPD for schools and clusters, and page 8 for information about funding. www.slcs.ac.uk/yh
Regional Primary Science CPD Conferences

These highly popular regional day conferences are organised in partnership with the Association for Science Education, the Centre for Science Education and local authorities to give access to the most up-to-date information and research into primary science education. Programmes will include keynotes from leading primary science experts, and workshops by consultants and local leading teachers, to provide modelled examples of planning and practical activities to try in the classroom.

Participants will be able to:
- implement recent developments in primary science
- experience a range of activities illustrating creative approaches to teaching science
- share experiences and ideas with colleagues in their region

Code: YHE10101
Ideal for: science co-ordinators and leaders, primary teachers
Age group: KS Foundation, KS1, KS2
Length: 1 day
Course fee: £130

We offer all the regional courses that are listed in the programme, starting on page 34

Primary Science Subject Leaders Updates

These half day courses provide CPD for science co-ordinators and leaders drawing on a range of sources. Updates will cover important issues, such as implementing curriculum change, reports from Ofsted, QCDA developments and Assessing Pupil Progress in science. This is an ideal way to keep in touch with developments, network with colleagues and gain ideas and activities to use in schools.

Participants will be able to:
- develop links with science subject leaders from the region
- identify strategies to prepare for curriculum change
- develop skills for leading science effectively

Code: YHE10044
Ideal for: science co-ordinators and leaders
Age group: KS Foundation, KS1, KS2
Length: 0.5 day
Course fee: £70

For more information visit:
www.slcs.ac.uk/network/yhe10101
www.slcs.ac.uk/network/yhe10044
In order to ensure that access to high quality professional development is within easy reach there are ten Science Learning Centres located across the country.

This prospectus includes all the courses happening regionally as well as those being delivered at the National Centre. There’s nothing to stop you attending a Centre outside your region - in fact we’re very happy for you to do so.

Make sure you visit the website regularly for up-to-date information about all courses in our programme.

To book a place on a course call 0845 155 1714 or book online at www.slcs.ac.uk/courses
The national network of Science Learning Centres is a joint initiative by the Department for Education and the Wellcome Trust.

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