



**SOUTH EAST
SCIENCE LEARNING PARTNERSHIP**

**SECONDARY
SCIENCE COURSES
ONLINE SERIES**

SPRING TERM

CONTENTS

ONLINE SUBSCRIPTION FOR YOUR SCIENCE DEPARTMENT	4
TECHNICIANS: HEALTH AND SAFETY	6
SUBJECT KNOWLEDGE ENHANCEMENT PHYSICS KS4	7
HOW TO TEACH A-LEVEL CHEMISTRY	8
EDUCATION RECOVERY: SUPPORTING LEARNERS IN SCIENCE	9
SECONDARY SCIENCE UPDATES	10
LEADING ON SECONDARY SCIENCE CURRICULUM DESIGN	11
SUBJECT KNOWLEDGE ENHANCEMENT CHEMISTRY KS4 SERIES	12
SUBJECT KNOWLEDGE ENHANCEMENT PHYSICS KS5 SERIES	14
ENRICHING SCIENCE PEDAGOGY SERIES	16
NATIONAL CHEMISTRY NETWORK MEETING	18
GETTING READY FOR BRITISH SCIENCE WEEK	20
SECONDARY SCIENCE EARLY CAREER TEACHER PLANNING SERIES	21
VIRTUAL EARLY CAREER TEACHER NETWORK MEETING	22
VIRTUAL HEAD OF SCIENCE NETWORK MEETING	22
VIRTUAL TOP TIPS FOR SOUTH EAST TECHICIANS	23
VIRTUAL POST-16/FE SCIENCE NETWORK MEETING	23
CONTACT DETAILS	24

WELCOME TO SOUTH EAST SLPs

KENT & MEDWAY SLP: KEVIN FROST

SUSSEX & SURREY SLP: CLAIRE DAVIES

HAMPSHIRE & DORSET SLP: STEVE SMITH

OXFORDSHIRE & READING SLP: CLAIRE HAMNETT

WELCOME FROM SOUTH EAST SLPs

Dear Colleagues,

We hope you had a good Christmas break and feel fully rested and rejuvenated. Thank you to all of you that continue to support the work of your local Science Curriculum Hub.

We are pleased to be able to offer you an extensive programme of support in the coming terms. We are also really excited to offer your department a new online subscription package for Secondary Schools brought to you by working collobareitvely with all SLPs across the South East. This is a comprehensive offer of many online courses brought to you at a very discounted price. As always, we are here to support you with all your training needs.

Please contact us if you would like to draw upon our expert facilitators for any bespoke CPD for you or your department. We hope you have a really good start to the term and we look forward to seeing you at one of our future events.

We hope to be welcoming you on one of our courses this term.

Kevin Frost, Claire Davies, Steve Smith & Claire Hamnett

Lead SLP Teachers for South East Science Learning Partnerships



ONLINE SCIENCE SUBSCRIPTION FOR YOUR SCIENCE DEPARTMENT

Brought to you by your local Science Curriculum Hubs (SLP's)

We are delighted to be launching a comprehensive package of Science CPD support to schools across South East. The package can be accessed by your **whole science department and other colleagues teaching science in your school** to support your CPD needs.

The package of support is from January 2023 to July 2023 offering great value for money Science CPD support.

ONLINE PACKAGE

**RRP: £1,000+
CPD PER TEACHER**

- Narrowing the Gap (Education recovery)
- Health & Safety for Technicians
- Subject Knowledge Enhancement KS3/KS4 Chemistry
- Subject Knowledge Enhancement KS4 Physics (Forces and Motion, Electricity – OHM's Law, Nuclear Radiation and Hooke's Law)
- Teaching in Science (enriching science pedagogy)
- How to teach A-level Chemistry (SKE KS5 Chemistry)
- Secondary Science Updates
- Subject Knowledge Enhancement KS5 Physics
- Subject Knowledge Enhancement KS3/4 & KS5 Biology
- Secondary Design
- Online Technician Conference plus many more to be announced a minimum of 20 courses available during the period.

Cost: £450 (*Subsidy available of £250)

Actual cost: £200 (ex-vat) available to all maintained schools

PURCHASE ONLINE PACKAGE

ENHANCED PACKAGE

**RRP: £1,500+
CPD PER TEACHER**

Access to all online CPD support mentioned plus:

- Personalised needs analysis for your science department conducted by Science CPD Expert
- 2-hour bespoke science department CPD
- 25% discount for face-to-face courses delivered by South East SLP's.

Cost: £700 (*Subsidy available of £350)

Actual cost: £350 (ex-vat) available to all maintained schools

PURCHASE ENHANCED PACKAGE



= **Part of the online subscription package**
(you will see this icon throughout the brochure).

Please For any questions or queries please contact James Bennett via e-mail: james.bennett@canterbury.ac.uk



*Please note subsidy payments will be paid directly to your school from STEM Learning.



TECHNICIANS: HEALTH AND SAFETY

Technicians are at the heart of every science department, playing a crucial role in supporting effective practical work. With this comes a role in ensuring that the department is safe. Develop a good foundation for carrying out effective health and safety, to support you in your job, but also to support teachers and students.

You will be able to:

- Understand the key areas of concern in science departments
- Identify good practice in risk assessments for technician and teacher activities
- Use good practice to audit labs, prep rooms and stores

For this course you must have a CLEAPSS username and password. If you are unsure of what this is please contact your school or ITT provider for more information.

THURSDAY 19 & 26 JANUARY | 1.30pm - 2.30pm



Remote Online Platform: Microsoft Teams

Cost: Maintained School £60 | Non-maintained School £120

BOOK NOW

6

For more information, email thestemhub@canterbury.ac.uk

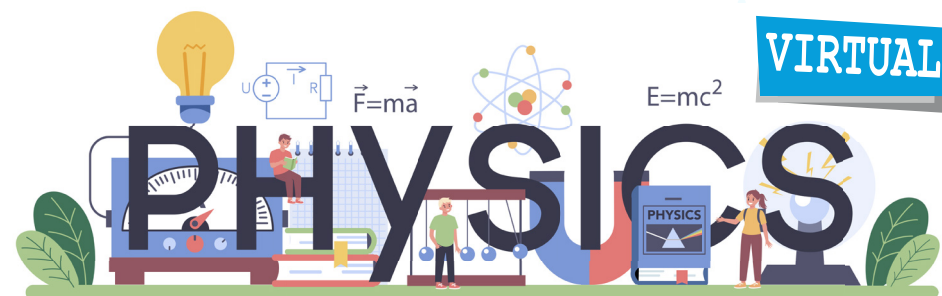


SUBJECT KNOWLEDGE ENHANCEMENT: PHYSICS KS4

Develop the background subject knowledge required to help planning and teaching physics for key stage 4. It will build on your knowledge from undertaking the key stage 3 physics course. Start your key stage 4 teaching with the tools and confidence to plan and teach effective learning for your physics classes.

You will explore ways of building student understanding, taking into account misconceptions and common issues in teaching these concepts.

WEDNESDAY 25 JANUARY	Forces and Motion	4pm to 5pm
WEDNESDAY 1 FEBRUARY	Electricity - ohm's law	4pm to 5pm
WEDNESDAY 8 FEBRUARY	Nuclear radition	4pm to 5pm
WEDNESDAY 22 FEBRUARY	Hooke's Law	4pm to 5pm



Remote Online Platform: Zoom

Cost: Maintained School £100 | Non-maintained School £200

BOOK NOW

7

For more information, email thestemhub@canterbury.ac.uk



HOW TO TEACH A-LEVEL CHEMISTRY

Looking to improve your confidence in teaching A-Level Chemistry? Ben Griffin Smith is running six sessions between January and March covering main themes of the A-level syllabus. He will tailor the session to ensure delegates are able to best access the content.



MONDAY 30 JANUARY	PERIODICITY	5pm - 6pm
MONDAY 6 FEBRUARY	BONDING AND SHAPE	5pm - 6pm
MONDAY 27 FEBRUARY	QUANTITATIVE CHEMISTRY	5pm - 6pm
MONDAY 13 MARCH	REDOX CHEMISTRY	5pm - 6pm
MONDAY 20 MARCH	ORGANIC CHEMISTRY	5pm - 6pm
MONDAY 27 MARCH	ORGANIC CHEMISTRY 2 (MECHANISMS)	5pm - 6pm

Remote Online Platform: Zoom

Cost: Maintained School £120 | Non-maintained School £240

BOOK NOW

8

For more information, email thestemhub@canterbury.ac.uk

EDUCATION RECOVERY: SUPPORTING DISADVANTAGED LEARNERS IN SCIENCE



School closures due to COVID-19 have impacted more negatively on disadvantaged learners than non-disadvantaged peers. This course brings together the findings from research on the barriers to the progress of disadvantaged learners and identifies the areas where they are likely to have impact in the classroom. Strategies to support learners with aspects of literacy, scientific reasoning and metacognition are explored with participants also sharing their own good practice.

You will be able to:

- Increase familiarity with the research evidence linked with supporting disadvantaged learners
- Develop strategies and resources to support disadvantaged learners in science
- Share good practice and identify actions to best support disadvantaged

TUESDAY 28 FEBRUARY & 28 MARCH | 4pm - 5pm



Remote Online Platform: Microsoft Teams

Cost: Maintained School £60 | Non-maintained School £120

BOOK NOW

9

For more information, email thestemhub@canterbury.ac.uk

SECONDARY SCIENCE UPDATES

A termly update focused on the latest ideas/best practice/research on teaching science for teachers of 11-18 year olds.



THURSDAY 9 FEBRUARY	4pm - 5pm	BOOK NOW
THURSDAY 30 MARCH	4pm - 5pm	BOOK NOW
THURSDAY 18 MAY	4pm - 5pm	BOOK NOW

VIRTUAL

Remote Online Platform: Zoom

Cost: Maintained School £20 | Non-maintained School £40 per session



Take them to a world beyond the classroom

STEM Ambassadors are here to help you bring STEM subjects to life
Invite a STEM Ambassador into your lesson **today**



LEADING ON SECONDARY SCIENCE CURRICULUM DESIGN



Consider what makes an effective curriculum. Progression in content and skills are explored and also how we can plan to support long term learning at curriculum level. External influences on curriculum development are considered and participants will explore development of schemes of learning to suit their own setting and identify next steps.

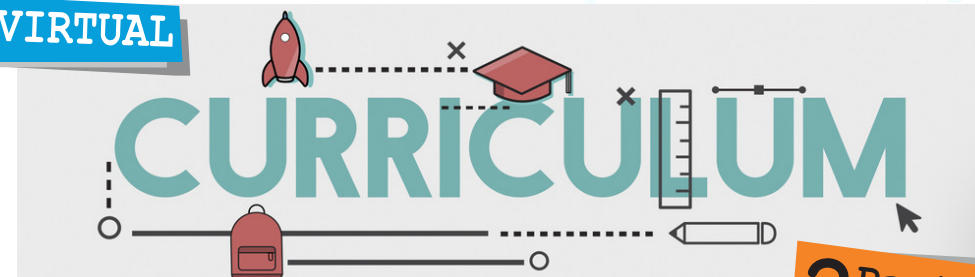
You will be able to:

- Consider and begin to apply principles of effective curriculum design to develop the science curriculum in your school
- Plan content as a sequence of progression and provide rationale
- Plan for progression in practical skills through a secondary curriculum
- Critique examples of schemes of learning and identify good practice for your own setting

Below is the schedule of the course which consists of 2 sessions:

TUESDAY 20 JUNE	Applying principles of curriculum design to turn curriculum aims into a long term curriculum mode.	2pm - 5pm
TUESDAY 27 JUNE	Planning progression in content	4pm - 5pm

VIRTUAL



2 Part Course

Remote Online Platform: Zoom

Cost: Maintained School £100 | Non-maintained School £200

BOOK NOW

SUBJECT KNOWLEDGE ENHANCEMENT CHEMISTRY KS4 SERIES



The Subject Knowledge Enhancement Chemistry series will help you to prepare for teaching the topics of Structures & Bonding, Organic Chemistry and Chemical Changes.

It is aimed at KS4 chemistry teachers, however if you are looking to improve your subject knowledge then they are suitable for chemistry teachers teaching at KS3 and KS5. Ideal for non-specialists (those teaching chemistry outside their degree specialism), early-careers teachers, NQTs, trainees are also welcome looking to deepen their understanding.

These 3 workshops will help you gain confidence in your understanding of chemistry and your ability to teach it engagingly. You will be introduced to lots of ideas and resources to help in your teaching and you will have the opportunity to ask questions.

Book for all 3 to gain real immersion in the subject or pop into individual workshops for help with a particular topic.

Cost for maintained schools:
£20 per course or £50 for all three courses

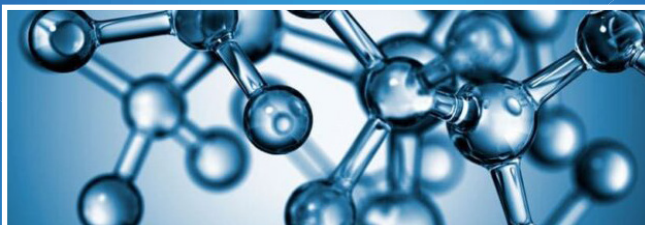
Taking place virtually using
Zoom

VIRTUAL

BOOK CHEMISTRY KS4 SERIES

Structures & Bonding Workshop 1:

MONDAY 23 JANUARY | 4pm - 5pm



In this workshop we will look at the different models and strategies used to teach ionic, covalent and metallic bonding. We will explore how these different types of bonding and structures are related to the properties of substances, unpicking some common misconceptions along the way.

BOOK NOW

Organic Chemistry Workshop 2:

MONDAY 30 JANUARY October | 4pm - 5pm

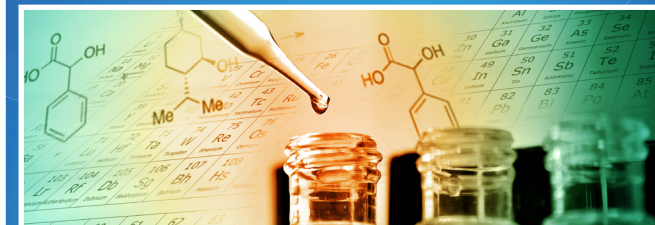


The processing of crude oil to produce fuels, polymers and various other useful substances requires an understanding of several chemistry concepts, linking several areas of the GCSE syllabus. In this workshop we will look at how crude oil is separated by fractional distillation, the structures and properties of different hydrocarbons, and how cracking produces smaller, more useful molecules.

BOOK NOW

Chemical Changes Workshop 3:

MONDAY 6 FEBRUARY | 4pm - 5pm



In this workshop we will look at the process of electrolysis, including the electrolysis of molten ionic compounds, extracting metals, and the electrolysis of aqueous solutions. This will include how to represent the reactions at the electrodes as half equations.

BOOK NOW

SUBJECT KNOWLEDGE ENHANCEMENT PHYSICS KS5 SERIES



The Subject Knowledge Enhancement Physics series will help you to prepare for teaching the topics of Waves, Fields and Particle Physics.

It is aimed at teachers at all stages of their teaching physics including teachers new to teaching at KS5 and especially teaching an area of KS5 not covered before. Ideal for non-specialists (those teaching physics outside their degree specialism), early-careers teachers, NQTs, trainees are also welcome looking to deepen their understanding, refreshing your skills and teachers who wish to develop their teaching at KS4.

These 3 workshops will focus on the subject knowledge needed to teach the content. You will explore ways of building student understanding, taking into account misconceptions and common issues in teaching key concepts. It will enable you to gain confidence in your understanding of physics. You will be introduced to lots of ideas and

Book for all 3 to gain real immersion in the subject or pop into individual workshops for help with a particular topic.

Cost for maintained schools:
£30 per course or £75 for all three courses

Taking place virtually using
Zoom

VIRTUAL

BOOK PHYSICS KS5 SERIES

PHYSICS FIELDS Workshop 1:

TUESDAY 21 FEBRUARY | 4pm - 5.30pm



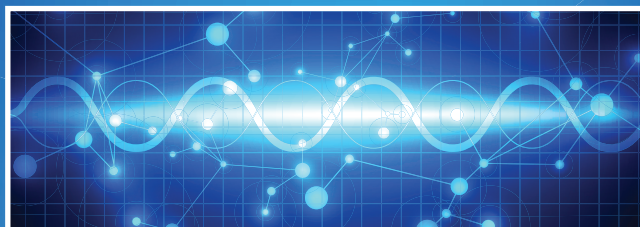
In this session will help you to prepare for teaching fields and will focus on the subject knowledge needed to teach the content.

You will explore ways of building student understanding, taking into account misconceptions and common issues in teaching key concepts.

BOOK NOW

PHYSICS WAVES Workshop 2:

TUESDAY 28 FEBRUARY | 4pm - 5.30pm



In this session will help you to prepare for teaching the topic of electricity and will focus on the subject knowledge needed to teach the content.

You will explore ways of building student understanding, taking into account misconceptions and common issues in teaching key concepts.

BOOK NOW

PARTICLE PHYSICS Workshop 3:

TUESDAY 7 MARCH | 4pm - 5.30pm



In this session will help you to prepare for teaching the topic of Particle Physics and will focus on the subject knowledge needed to teach the content.

You will explore ways of building student understanding, taking into account misconceptions and common issues in teaching key concepts.

BOOK NOW

ENRICHING SCIENCE PEDAGOGY SERIES



This course series explores and exemplifies some of the key recommendations from the EEF's 'Improving secondary science' and 'Metacognition and self-regulated learning' guidance reports, as well as the 'Cognitive science approaches in the classroom' systematic review.

These 3 workshops aimed at KS3/4 science teachers. Participants will develop an understanding of evidence informed approaches they can use back in the classroom to refine their practice.

VIRTUAL

Book for all 3 to gain real immersion in the enriching science pedagogy or pop into individual workshops for help with a particular focus.

Cost for maintained schools:
£20 per course or £40 for all three courses

Taking place virtually using

**BOOK ENRICHING SCIENCE
PEDAGOGY SERIES**

Metacognition

THURSDAY 16 MARCH | 4pm - 5pm



By the end of the session you will have a greater understanding of:

- What metacognition and self-regulation means
- Strategies to help pupils direct their own learning
- How to promote metacognitive talk in the classroom

BOOK NOW

Memory & Cognitive Science

THURSDAY 23 MARCH | 4pm - 5pm



By the end of the session you will have a greater understanding of:

- How to support pupils to retrieve and retain knowledge
- How to manage cognitive load
- Approaches to working with schemas

BOOK NOW

Misconceptions and modelling

THURSDAY 30 MARCH | 4pm - 5pm



By the end of the session you will have a greater understanding of:

- How to identify and address pupil misconceptions
- Using models to support understanding
- Effective approaches to feedback

BOOK NOW

Secondary Science CPD courses

‘National Chemistry Network Meeting (Teachers)’



Our keynote speaker Professor Vanessa Kind will be speaking about “beyond appearances” and student misconceptions in conceptual areas of Chemistry. Vanessa will suggest ways of supporting students to replace their previous misconceptions with correct concepts.

Professor Vanessa Kind is currently working at Leeds University, Professor Kind has written *Beyond Appearances: Students’ Understandings of Basic Chemical Ideas* for the Royal Society of Chemistry and a resource file *Building Success in GCSE Science: Chemistry*.

Date and time: 22nd February 2023, 4:00-5:00pm

Venue: remote

Fee: £0 / £20*

Book online or search code RH219 HC3
at <https://www.stem.org.uk/secondary/cpd>

Science Learning Partnership: covering West Herts, Bucks, Slough, Maidenhead and Windsor. If you have any questions, please contact Mandy, Kim or Karine Hubs@scd.herts.sch.uk



GETTING READY FOR BRITISH SCIENCE WEEK

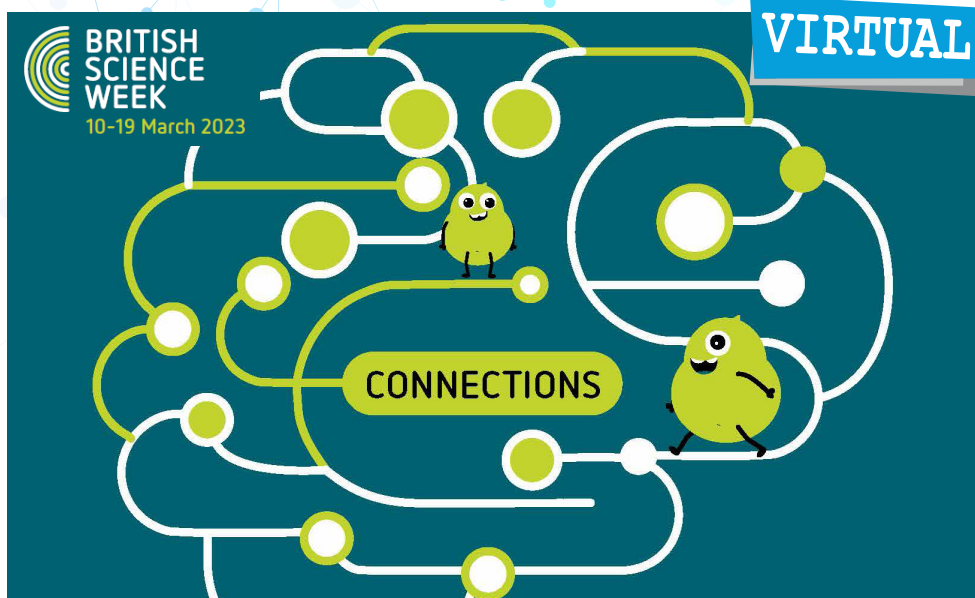
Our annual Getting Ready for British Science Week to bring you a session full of ideas and resources to support your school on getting involved with British Science Week 2023 taking place on 10th to 19th March 2023.

This year's theme is connections.

'Connections' as a theme offers a huge range of topics to delve into as part of your British Science Week 2023 activities, which links with multiple areas across science, technology, engineering and maths.

This CPD session will be supported by STEM Ambassador Hub Central South England.

WEDNESDAY 25 JANUARY | 4pm - 5pm



Remote Online Platform: Microsoft Teams

Cost: FREE

[BOOK NOW](#)

SECONDARY SCIENCE EARLY CAREER TEACHER 'HOW I PLAN AND TEACH' KS3 SCIENCE SERIES

This FREE online 'How I plan and teach...' training programme aims to support Early career teachers with the planning and teaching of specific KS3 Biology, Chemistry and Physics concepts. Experienced science teachers will model the thought processes involved in the planning and teaching of various topics, as well as sharing tips, ideas and signposting useful resources.

This support cpd series will support you in your development of:

- Subject knowledge
- Effective short, medium and long-term planning
- Scientific explanations
- Teaching strategies

THURSDAY 26 JANUARY	Biology: Digestion and Nutrition Physics: Forces	4pm to 5pm	BOOK NOW
THURSDAY 9 MARCH	Biology: Photosynthesis Chemistry: Chemical Reactions	4pm to 5pm	BOOK NOW
THURSDAY 4 MAY	Chemistry: Acids and bases Physics: Electricity	4pm to 5pm	BOOK NOW
THURSDAY 15 JUNE	Biology: Ecology Physics: Light and Sound	4pm to 5pm	BOOK NOW

Remote Online Platform: Zoom

Cost: FREE

[BOOK ECT PLANNING SERIES](#)

VIRTUAL NETWORK MEETINGS

EARLY CAREER TEACHER NETWORK MEETING

TUESDAY 21 FEBRUARY | 3.45pm - 4.45pm **VIRTUAL**

Developing effective classroom management

The aim of this network is to contextualise the 5 core areas of the Early Career Framework - 'What does this look like in the science classroom?'. These webinars will provide the opportunity to reflect on and refine your practice, share good practice, network with other science ECTs across the South / South East region, and to signpost you to useful resources.

Remote Online Platform: Zoom

Cost: FREE*

BOOK NOW

HEAD OF SCIENCE NETWORK MEETING

TUESDAY 7 FEBRUARY | 4pm - 5pm **VIRTUAL**

If you are new or an established Head of science then please come and join us for our virtual Heads of Science online meeting.

This will be an opportunity to discuss and share best practice in addition each meeting will focus on several themes relevant to all Head of Science teachers.

Remote Online Platform: Microsoft Teams

Cost: FREE*

BOOK NOW

*Please note if you do sign-up and do not attend there is a £25 non-attendance charge (unless you inform us prior to the meeting).

TOP TIPS FOR SOUTH EAST TECHNICIANS

WEDNESDAY 8 FEBRUARY | 1.45pm - 2.45pm **VIRTUAL**

The technician network has expanded recently working collaboratively with Science Learning Partnership's across the South East. These will be taking place virtually every term and providing local face-to-face meetings across the South East working towards an blended approach.

The technician network is FREE to attend* and we welcome any technicians who would like to attend.

The agenda will be announced nearer the time.

Remote Online Platform: Microsoft Teams

Cost: FREE*

BOOK NOW

POST-16/ FURTHER EDUCATION NETWORK MEETING

THURSDAY 9 MARCH | 3.45pm - 4.45pm **VIRTUAL**

This is an opportunity to collaborate with your peers so you can share information, ideas, resources and strategies to develop your teaching. You will be provided with expert help from science practitioners and consultants to identify priority issues, signpost support and will be able to develop solutions, drawing on the expertise of others within the group.

The network will explore various topics in different meetings, focusing on current and emerging priorities. It is suitable for anyone involved with delivering and/or leading science courses within the post 16/further education sector.

Remote Online Platform: Microsoft Teams

Cost: FREE*

BOOK NOW

*Please note if you do sign-up and do not attend there is a £25 non-attendance charge (unless you inform us prior to the meeting).

CONTACT DETAILS FOR SOUTH EAST SLPs

KENT & MEDWAY SLP



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HAMPSHIRE & DORSET SLP



<https://www.thornden.hants.sch.uk/sciencelearningpartnership>

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Telephone: 02382 14528

Follow us on twitter: [@hantsdorsetslp](https://twitter.com/hantsdorsetslp)

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SUSSEX & SURREY SLP



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Follow us on Twitter: [@ScienceSussex](https://twitter.com/ScienceSussex)

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