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Events in 2022

Now that we are approaching Christmas break, there are lots of events to watch out for in 2022. In the next newsletter, there will be more information on Scotland's ASE Conference with its theme on Practical Work. There will be Primary Teachmeets, next term, on the theme of interdisciplinary learning and the ASE annual conference will be online on 28th & 29th January and 19th & 26th February. There will be lots of sessions for everyone and easily accessible for all of us without the travel!

IOP Scotland is planning online CLPL from January to March and a face-to-face Stirling Meeting in May; SSERC is offering professional learning programmes with exciting Nuffield Research Placements for S5 learners, and the RSC is hosting a podcast for teachers and a West of Scotland Meeting for Chemistry Teachers. Details of each event, with its link and QR code are provided in the newsletter.

In this newsletter, there are updates to Subject Matters; The Learned Society Group; SSERC; RSC, and TAPS (Teaching Assessment in Primary Science). The Scottish version of TAPS was launched in September and SSERC, along with a working group of primary cluster programme mentors, is proud to have been part of the writing and development of this resource.

We also encourage colleagues to consider joining ASE. Have a look at memberships for the science department (11-19); student teacher, and early career primary and secondary teachers. Benefits of membership include discounts to CPD, conference events and ASE's bookshop.

Finally, congratulations to Stephen Dempsey, at Turriff Academy, on achieving the IOP Physics Teacher Award 2021 and to IOP Domains for winning the CPD category in the Secondary Teacher Awards.

To science educators in Scotland, ASE Scotland wishes you all a restful Christmas break.

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Events in January and February



20th January - Online Technicians Leadership Programme: Leading yourself and your team

22nd January - Physics for Non-Specialists Online - Waves

27th January - ASE New Technicians: Getting Started

1st February - ASE TechMeet Online (Technicians)

5th February - Physics for Non-Specialists Online – Electromagnetism

24th February - Online Technicians Leadership Programme - Working with and training others



The IOP Scotland Physics Coaches are planning a number of online events for January to March 2022 which will be available to book via TalkPhysics Events soon https://www.talkphysics.org/events/.

IOP Teacher of Physics Award 2021: Steve Dempsey, Turriff Academy, Turriff

Steve is an outstanding teacher who is passionate about his subject. His students frequently praise the quality of his lessons, appreciating his dedicated approach. He makes skilled use of practical and he enhances experience for students of all abilities. His lessons foster curiosity about science and physics, and he goes the extra mile to capture students' imagination. He is actively involved in a range of extracurricular activities with pupils, leading school trips and other activities. Steve is very committed to helping colleagues, and his coaching of early career teachers has been invaluable. He has taken responsibility to lead the Physics Teacher Support Group in Aberdeenshire and provided outstanding service to its programme, as well as to other professional organisations.

Details of all of the award winners are available at

https://www.iop.org/about/awards/2021-teachers-physics-award-winners.

Stuart Farmer

Stuart is IOP Education Manager in Scotland.

IOP Domains CPD wins an award



IOP are delighted to announce that IOP online Domains. our teacher programme has won the CPD category in the Teach Secondary Awards. The judges said: "This is an impressively-featured, free resource that can build confidence, teacher expertise and knowledge, particularly among non-specialist teachers who may not have studied physics at degree level." Visit https://spark.iop.org/iop-domains-physicscpd-programme to watch the videos and register for live online workshops based on them.

IOP Scotland Stirling Meeting — Thursday, 26 May 2022

The date for the next Stirling Physics Teachers' Meeting has been fixed as Thursday 26 May 2022. It is being planned as a face-to-face event at the Stirling Court Hotel. It will also form one of the days of the IOP Scotland/SSERC Physics Teachers' Summer School which is scheduled for Wednesday 25 May to Saturday 28 May 2022 with a visit to the University of St Andrews on Friday 27 May 2022.

Nominations are now open for the 2022 IOP Teachers of Physics Award. Further details can be obtained at

https://www.iop.org/about/awards/teachers-physics-award. The deadline for nominations, including self-nomination, is 14 February 2022.

2021 Teachers Physics Award Winners



2022 IOP Teachers of Physics Award



The Learned Society on Scottish STEM Education (LSG)

Stuart Farmer

The Learned Societies Group on Scottish STEM Education submitted a response to Ken Muir's consultation. It will be available to view on the LSG website soon



https://rse.org.uk/about-us/governance/standing-committees/learned-societies-group/.

TAPS Scotland

The Teacher Assessment in Primary Science (TAPS) project was funded by the <u>Primary Science Teaching Trust</u> (PSTT). TAPS aims to develop support for a valid, reliable and manageable system of primary school science assessment which will have a positive impact on children's learning.

The TAPS pyramid tool provides a structure to help schools evaluate and develop their assessment processes. The rich formative assessment information collected by teachers in the course of ongoing classroom work is also utilised for summative purposes — the orange arrow represents information flowing up the pyramid. Schools should begin with a focus on the 'Pupil layer' and the 'Teacher layer' at the base of the pyramid. These foundations encapsulate the principles of Assessment for Learning, and this is where changes will have the most impact on pupil progress in Primary Science.

The pyramid website is designed to be a supportive source of examples – by clicking on each box you will be taken to examples from a range of schools. It can also provide a structure to support school self-evaluation.

The <u>Scottish version of TAPS</u> was launched in September 2021 and SSERC, along with a working group of primary cluster programme mentors, are proud to have been part of the writing and development of this resource.

Euan Mitchell is SSERC's Head of Early Years and Primary

Subjects Matter report and launch event

Stuart Farmer

The in-person launch event took place successfully on Thursday 18 November at the Royal Society of Edinburgh. There were 26 participants representing a range of learned societies, the General Teaching Council for Scotland. Education Scotland. Qualifications Authority and two teacher unions. The event was chaired by Martin Hendry with John Holman, ASE President, Laura Thomas, and Stuart Farmer making short presentations between roundtable discussion and plenary sessions. Following the event an article about appeared on the Times Educational Supplement website:

https://www.tes.com/news/teachers-want-relevant-cpd-not-motivational-speakers.

A report of the day is being prepared and further follow-up activities are planned.

The IOP Subjects Matter report can be downloaded from

https://www.iop.org/about/publications/subjectsmatter and a paper prepared for the event with evidence applicable to Scotland can be downloaded from

https://www.researchgate.net/publication/35645 9829 Subjects Matter for Scotland An Evide nce Paper.

QR codes:







Subject matters



Subject Matters – evidence paper

QR codes:



Primary Science Teaching Trust



Scottish version of TAPS

Emerging STEM Partnerships

At SSERC, we are always looking for new and exciting partnerships and we are equally delighted when potential partnerships provide the opportunity to bring together a range of products and services from the SSERC portfolio.

Our first new partnership is with the Aero Space Scientific Educational Trust (ASSET) <u>Aero Space Kinross</u> which complements our role as ESERO Space Champion <u>UK space education office | STEM</u>. We look forward to supporting the education community with a range of activities relating to space, the planet and aeronautics.

Our second exciting partnership is with <u>the3engineers</u> where a range of educational activities linked to the contexts of three books will be developed to support the Scottish primary curriculum with the first focusing on the impact of plastic on the ocean and beach environments. We will be featuring both exciting partnerships in our STEM Bulletin (January 2022) and Early Years and Primary STEM Bulleting (February 2022).

QR codes:



Aero Space Kinross



UK space education office



the3engineers

STEM Ambassadors (SAiS at SSERC)

STEM Ambassadors in Scotland Week is a chance to hear from and work with STEM Ambassadors. The week will include Careers Carnivals, Scottish Researchers Blogs a social media takeover and much more.

Everything you need to know to prepare for STEM Ambassador in Scotland Week 2022 is included in the Practitioner Handbook

https://www.stemambassadors.scot/_files/ugd/3 f3209_dc1c1e29cede406897806f940b5f51e2.pdf



Keep up to date with events for educators from STEM Ambassadors Scotland on our website.

https://www.stemambassadors.scot/events-calendar



Euan Mitchell is SSERC's Head of Early Years and Primary

Professional Learning at SSERC

SSERC offers a vast portfolio of professional learning (PL) programmes for STEM educators in Scotland. Our curricular based PL is offered to everyone: childminders, early years workers, primary and secondary staff as well as lecturers, technicians and those who work with young people in non-formal settings such as youth workers and in the CLD sector.



Nuffield Research Placements

Applications are now open for the Nuffield Research Placements programme, which SSERC coordinate in Scotland.

Nuffield Research Placements are an excellent opportunity for S5 pupils to gain real-world research experience in a university or industry setting with a wide range of engaging, hands-on projects relating to an area of science, quantitative social science, computing, technology, engineering or maths (or a combination).

The programme consists of 2 weeks of online modules to develop professional skills and 2-weeks of face to face experiences building STEM skills.

Our next session on 19th January will provide a step-by-step guide for students and teachers on the application process. Sign up here:

Nuffield Research Placements Application Information Session Tickets, Wed 19 Jan 2022 at 15:30 | Eventbrite



For more information and to apply visit: www.nuffieldresearchplacements.org



Euan Mitchell is SSERC's Head of Early Years and Primary



Teacher2Teacher Podcast



EPISODE 1 - Do teachers really have a weekend?

We had so much fun trying this out for the first time so please be kind!

All feedback using #Teacher2TeacherPodcast is welcomed. You can follow Miss Russell & Mrs Scoular on twitter here - @ misshrussell & @laurascoular

https://open.spotify.com/show/6y07kyB8rPErZWqZM4vB3R

A sustainable chemistry curriculum for a sustainable planet

We asked young people and educators about their views on sustainability and climate change within the chemistry curriculum, and we shared the results in a new report. Visit our webpage now to find out what they told us – from their views on careers to their opinions on priority topics – or download the report in full.





RSC site

report

In January there will be an online panel discussion featuring leaders in education and policymaking. Register here - https://www.rsc.org/events/detail/72919/



Find out more about the Royal Society of Chemistry support for sustainable teaching:

Sustainability

contexts for

primary science

Climate change and sustainability resources



14 ways to teach sustainability in chemistry



<u>Learning for</u>
<u>Sustainability –</u>
<u>Climate</u>
<u>Emergency –</u>



Exploring
Climate Justice
resource



West of Scotland Meeting for Teachers of Chemistry 2022

Online meeting, Thursday 13th January 2022, 4-5pm Practical CPD session (TBC), May/June 2022

Introduction

The West of Scotland meeting for Teachers of Chemistry normally runs in January each year, with a significant component of hands-on lab chemistry. We continue to experience significant disruption to in-person activities, so we have scheduled an online gathering to be held in the interim. The meeting will consist of a mixture of short talks and discussion sessions and is free to attend.

Topic

We will use the online meeting to revisit our traditional focus on Advanced Higher project work, which we aim to resume in the summer (public health guidance permitting).

Registration

To register an interest in the meeting, please send an email to chemistry-teacherscpd@strath.ac.uk with the subject line "registering interest in January meeting" or words to that effect. We will contact you with more details closer to the time.

Membership Sign Up

Science Department (11-19)

Save your school up to £320 per year on individual memberships.

Scan QR code or tap the URL below.



https://www.ase.org.uk/member ship-sign-science-department

ASE Science Department membership can help support the entire science team in any secondary school or FE college. For example, trainee and early-career teachers will be able to develop their careers through access to our extensive range of *live CPD events* and recorded webinars, while heads of science might benefit from strategic-level materials such as our *Good Practical Science guidance* or *Best Practice Guidance Documents*.

For just £250 per year, science departments are granted five individual logins (additional logins can be added for £30 per user), with registered users able to enjoy benefits such as:

- Member discounts of up to 50% on all ASE CPD events (including online), such as our annual conference - traditionally the largest gathering of science education specialists in Europe
- Access to recorded video CPD materials through our member-only secondary CPD Video hub
- Physical copies and digital archive access to our leading primary journal School Science Review (1x physical copy per school UK only)
- Physical copies and digital archive access to our leading primary journal Education in Science (1x physical copy per school - UK only)
- A wealth of digital teaching/department resources such BEST STEPS or our Science Department Scenarios
- Market-leading technician-facing resources such as Topics in Safety, and the Prep Room Organiser
- Up to 50% the vast majority of ASE & Millgate publications at *Millgate*.

If you get your science department to sign up, you get your next year's individual membership for free!

Primary membership

ASE primary membership provides teaching resources and professional development opportunities to support primary science subject leaders, teachers and schools.

Scan QR code or tap the URL below.



https://www.ase.org.uk/ content/membershipsign-primary

For just £130 per year, schools are granted eight individual logins, with registered users able to enjoy benefits such as:

- Member discounts of up to 50% on all ASE CPD events, including our four-day annual conference traditionally the largest gathering of science education specialists in Europe
- Access to recorded video CPD materials through our member-only Primary CPD Video hub
- Physical copies and digital archive access to our leading primary journal Primary Science (1x physical copy per school UK only)
- Physical copies and digital archive access to our leading primary journal Education in Science (1x physical copy per school - UK only)
- The Primary Science Leaders' Survival Guide (Online resource)
- A wealth of teaching resources such PLAN, Primary upd8 and the Primary Remote Learning Resources
- Up to 50% off ASE & Millgate publications at Millgate.

Student Teacher & Early Career 3 Year Option

We want you to be able to enjoy the support and benefits that being part of our network and community bring, and are delighted to be able to give our student teacher & early career members a special three-year offer, at a significantly discounted rate of £136 for three years (charged at £24, £44 and £68 in years 1-3 respectively or as a single one-off payment). If you feel a three-year membership option might not be for you, we also offer a one year plan for £70 for the year instead.

Some of the benefits trainee and early career members receive include:

- Priority access to ASE webinars as well as to our popular Teachmeets.
- Big discounts on professional development, from hands-on workshops, to our flagship Annual
 Conference (including one free day per year at any ASE CPD event during your three year plan)
- Access to early-career member online sessions providing opportunities to ask questions and share concerns & best practice.

 Scan QR code or tap the URL below.
- ASE Journals and full access to our journals archive online.
- Secondary members will also get online access to
 School Science Review, our leading peer reviewed journal;

 Primary members will get online access to our leading Primary Science journal.

https://www.ase.org.uk /individual-membership

Professional Registration

The ASE is licensed by the Science Council to manage professional awards, which recognise excellence for practitioners in science education:

• **RSci** (Registered Scientist Award), which benefits all those concerned with science teaching as a profession;

https://www.ase.org.uk/rsci

RSciTech (Registered Science Technician Award), which benefits all those concerned with science education, and

https://www.ase.org.uk/rscitech

• **CSciTeach** (Chartered Science Teacher Award), which benefits all those concerned with science teaching as a profession.

https://www.ase.org.uk/csciteach

These can be awarded to eligible members. If you are not yet a member of ASE, you can click on the above QR code, that applies to you, in the membership section.