



Welcome from Susie Burr: Chair of ASE Scotland

On behalf of the Scottish Committee, I would like to welcome everyone to our regional newsletter. I hope that you are all weathering the storm of Covid-19. Times have changed with us all getting used to the new 'normal' and I am becoming proficient in the use of Zoom! But before I mention what is happening in ASE and the newsletter, I would like to introduce myself as Chair of ASE Scotland.

I have been a PT Biology at Kyle Academy, in Ayr, and a teacher educator. Currently, I run a Primary Science Quality Mark hub; provide a range of Professional Development workshops for teachers, and organise science events in schools. In September, I was appointed as Chair of ASE Scotland and I am looking forward to working with you all at this difficult time.

The committee aims to publish a newsletter every term: drawing awareness of the opportunities during and after lockdown. As always, the ASE is providing science education resources, which you will find on the website and in this newsletter. We are also highlighting news post-lockdown and encourage you to share your news or updates for our next newsletter.

At ASE Scotland, we are offering a series of TeachMeets for both secondary and primary teachers. We have already had two successful events: *Effective strategies* for primary and *BGE resources* for secondary teachers, as reported on page two of this newsletter. We encourage science educators and technicians to present and participate in TeachMeets, so please do get in touch.

The teaching profession in the UK is under severe stress and science teachers seem to be feeling the brunt of this. Consequently, the ASE have created a guide and a pilot project to support you in making your decisions. This is discussed in detail on page six of this newsletter.

We are looking forward to ASE Scotland conference, which is planned for Saturday 13th March, at Edinburgh Academy. Hopefully, this will be face-to-face but we will keep you posted if it is moved online.

Finally, if you are not a member please consider joining. We are all committed to helping others in science education. As a member, you will meet like-minded people. Other bonuses include well-informed articles, discounts on publications, conferences, and many more.

I wish you all well for the rest of the year and with good news on the vaccine front. Hopefully 2021 will be 'more normal' than 2020.

All the best

Susie Burr: Chair ASE Scotland

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Back to school in a post-lockdown world

NEWS

Local and national ASE events

<https://www.ase.org.uk/Events>



ASE Scotland will be hosting a number of TeachMeet style online events in the coming months. You can find details on either the URL or QR code above.

Susie Burr and Tess Watson reviewed two TeachMeets, in November, aimed at Primary and Secondary level, respectively.

Primary TeachMeet 12th November 2020

This was the first in a series of TeachMeets designed for students, probationers and those in the first few years of teaching. Our aim is to support those whose training or school experience has been disrupted by Covid 19. We hope that more experienced teachers will also benefit.

The TeachMeet looked at the range of strategies available for teaching primary science. We covered drama, citizen science projects, the use of models, using images, science clubs and resources available from RSC. My thanks to the presenters, Diane, Paul and Stephen.

Secondary Broad General Education TeachMeet 17th November 2020

On the 17th November we hosted a Scottish Secondary Broad General Education TeachMeet, which 26 keen practitioners attended for free! There was a wealth of excellent practice on display and feedback from the event was very positive. This was especially true for some of newly qualified teachers whose first year in teaching had been interrupted due to the pandemic. The event also proved useful for a number of teachers who were updating their CLPL.

The presenters were: Susie Burr on “Earth Science”; Stephen Hendry from RSC on “Post Lock Down Teaching Support”; Colin McGill from Edinburgh Napier University on “Formative Assessment”; Robyn Gray from Larbert High School on “Carousel Learning”, and Tess Watson - Science Teacher & ASE Field Officer for Scotland on “Science Requisitions”.

Links to the resources are provided:

Carousel Learning



Science Requisitions



Post lockdown teaching support



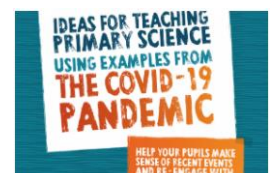
Pages seven to ten, of this newsletter, have a list of TeachMeets, conferences and online workshops, available for all practitioners in science education. To register your interest, scan the QR code or click on the URL provided.

Next Teachmeet . . .

Our next TeachMeets are on 9th December on *Science Enquiry* and 14th January on *Science Capital*. Please keep an eye on our events page for up and coming TeachMeets in January and beyond.

Making sense of the coronavirus pandemic

Stimulate and support conversations in primary school classrooms to help children to make sense of the experience of living through a pandemic.



The ASE Coronavirus Hub

The hub has a suite of resources at <https://www.ase.org.uk/ase-coronavirus-hub>.

You can also use the QR code:



Primary Remote Learning Resources

Members of the ASE Primary Science community worked together (remotely!) to write lessons for primary-aged pupils, which are designed to be directly accessible to children and parents at home.



Examples of remote learning resources: light; plants; states of matter, and living things and their habitats.

The resources are free and available to both teachers and home educators. These curriculum-led resources have been specifically designed to help deliver a structured series of topic-based primary science lessons in a home environment. The lessons also present clear examples of literacy and numeracy skills in science with a glossary of the key terms.

Primary and Secondary Directories

The resources linked to Primary and Secondary Directories were curated by representatives of the ASE's Primary Committee and 11-19 Committee, respectively.

Both directories are relevant for educators focusing on the 3-11 and 11-19 age groups. The intentions are for this to be a living, breathing set of community resources. So, if you are a primary-age or secondary-age educator and have suggestions for additions, then please share them either by email (info@ase.org.uk) or through Twitter via either direct message to @TheASE or the #ASEChat hashtag.

Free science education lockdown support webinar series

The link <https://www.ase.org.uk/news/free-science-education-lockdown-support-webinar-series> and QR code leads you to a variety of free webinars focusing on:



- * Trainees and NQT;
- * Secondary (11-19) science education;
- * Assessment and qualifications, and
- * Primary Science Education.

Teaching and learning post-lockdown

We report on post -16 years olds taking physical distancing measures to the extreme.

Advanced Higher Chemistry students, at Kinross High School, have formed 'bonds' with those at the same level, at Vanguard High School in Marion County, Florida.

The transatlantic lessons were developed and led by Dr. Graham Armstrong, Faculty PT of Science at Kinross High and Euan Hunter at Vanguard High.

Dr. Armstrong said: "Operating as a Virtual school, during lockdown, has given teachers and learners the opportunity to enhance their digital skills and has opened everyone's eyes to different ways of using the internet to build community with others, even in a school 5000 miles away! "

Learners from Kinross and Vanguard were introduced to each other, in the virtual realm, and started a simple set of practical experiments. Dr. Armstrong added: "Learners are developing digital and practical skills, but more importantly they are working together by sharing results, with peers, in Florida."

The chemists carried out preliminary experiments: one on the rate constant of dissolving marble in an acid; the other on the thermodynamics of decomposition of sodium carbonate. These were carried out, in real time, and their results were in excellent agreement.



Data recorded digitally and sharing the results to peers using Teams.

Longer term, both schools plan to investigate the difference between carbonate content in soil and water quality in two local beauty spots - Loch Leven in Kinross and Sulphur Springs in Florida.

Next newsletter...

If you have any news that you would like to share, with practitioners, on either:

- opportunities and challenges in teaching practical science
- supporting student and probationer teachers
- supporting technicians (for Technicians' Corner)

then please contact Susanburr952@btinternet.com

Technicians' Corner

We also want to have a section for technicians, in the newsletter, with the aim of supporting technicians across Scotland.

Membership <https://www.ase.org.uk/membership>

From organising local events to influencing national policy, the ASE works for teachers and educators like you to help develop your skills, your career and your professional recognition. A selection of the many benefits you'll enjoy as an ASE member include:

- *Access to thousands of curated teaching and CPD resources*
- *Subscriptions to influential, sector-leading journals and publications*
- *Inclusive public liability insurance cover up to the value of £10m*
- *Numerous CPD opportunities - both face-to-face at events and, now, in the online arena*
- *Professional registration opportunities to enhance your education credentials*
- *Opportunities to have your say and help shape the science education sector through our advocacy work*

You can find a more complete description of the benefits of joining the ASE - broken down into categories: **Primary Membership**; **Secondary and Colleges Membership**, and **Trainee and Early Career 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>

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



<https://www.ase.org.uk/cscitech>

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.

ASE Science Teacher SOS



The ASE's 11-19 Committee produced a guide, *Science Teacher SOS*, to help you make choices. The guide applies to teachers new to the profession; in their first few years of teaching; established teachers, and science leaders.

The ASE are looking for schools that may be or have in the past struggled with science teacher retention in a Gatsby-funded project - the SOS project.

The project entails a nominated contact, working with an ASE representative, to survey science staff and leadership attitudes to teacher retention. The information gained is used to determine the next steps activity for the department and there is a further questionnaire at the end of the project.

The training and discussion (for the nominated school contact) will take place online and the questionnaire takes less than 20 minutes to complete. All data is anonymised and schools get a copy of their own data plus the collated data from other responders. The ASE would also like to produce a few case studies from the participants - but again these will be anonymised.

Why take part?

In addition to departmental membership of the ASE, schools get information about and strategies to use to address retention related concerns in their setting. For the school rep this is also a chance to develop project leadership skills.

Further information and an opportunity to express interest can be found:

<https://www.ase.org.uk/news/help-shape-our-mission-keep-best-science-teachers-in-education> or by contacting sarahlongshaw@ase.org.uk or robbutler@ase.org.uk

TeachMeets and webinars

Due to Covid-19 pandemic, ASE has presented TeachMeets and webinars to technicians, student and probationer teachers; early years, primary and secondary teachers.

ASE Scotland is looking for teachers, ITE tutors, education consultants and faculty PTs who are willing to present in TeachMeets and webinars.

If you would like to share your expertise to colleagues then please contact Susanburr952@btinternet.com

ASE Scottish Committee

The Scottish Committee work together in organising TeachMeets; webinars; organising national conferences; newsletters, and many more.




If you are a member of ASE and would like to contribute to ASE Scotland Committee then contact Susanburr952@btinternet.com

PROFESSIONAL DEVELOPMENT

Early Years & Primary Teachers

<p>SSERC: Exploring Maths and Numeracy through Science – Early Level Self Study Course.</p>		<p>Click on QR code or tap the URL below.</p> <p>https://www.sserc.org.uk/professional-learning/primary-clpl/stem-clpl-for-early-level/</p>
<p>SSERC: Teddy in the Park</p> <p>Date: 3rd March 2021</p>		<p>Click on QR code or tap the URL below.</p> <p>https://www.sserc.org.uk/professional-learning/primary-clpl/teddy-in-the-park-sserc-meet/</p>
<p>SSERC: Science Inquiry: Fair Testing and Finding and Association</p> <p>Date: 9th March 2021</p>		<p>Click on QR code or tap the URL below.</p> <p>https://www.sserc.org.uk/professional-learning/primary-clpl/science-inquiry-fair-testing-and-finding-and-association-sserc-meet/</p>
<p>SSERC: STEM, Rocks, Our World</p> <p>Dates: 19th March 2021 to 20th March 2021</p>		<p>Click on QR code or tap the URL below.</p> <p>https://www.sserc.org.uk/professional-learning/primary-clpl/stem-rocks-our-world/</p>

Science Teachers and Technicians: Health and Safety

<p>SSERC: Optical Radiation – self-study course</p> <p>Date: 18th January 2021</p>		<p>Click on QR code or tap the URL below.</p> <p>https://www.sserc.org.uk/professional-learning/secondary-clpl/health-safety-clpl/optical-radiation-self-study-course/</p>
<p>SSERC: Online Radiation Protection Refresher</p> <p>Dates: 1st and 8th March 2021</p>		<p>Click on QR code or tap the URL below.</p> <p>https://www.sserc.org.uk/professional-learning/secondary-clpl/health-safety-clpl/online-radiation-protection-refresher/</p>
<p>SSERC: Electrical Safety – self-study course</p>		<p>Click on QR code or tap the URL below.</p> <p>https://www.sserc.org.uk/professional-learning/secondary-clpl/health-safety-clpl/electrical-safety-self-study-course-2/</p>
<p>SSERC: Physics Safety (other) – self-study course</p>		<p>Click on QR code or tap the URL below.</p> <p>https://www.sserc.org.uk/professional-learning/secondary-clpl/health-safety-clpl/physics-safety-other/</p>

Secondary Science Teachers

<p>SSERC: Royal Society of Biology Annual Teachers' Meeting</p> <p><i>Date: Thursday 27th May 2021</i></p>		<p><i>Click on QR code or tap the URL below.</i></p> <p>https://www.sserc.org.uk/professional-learning/secondary-clpl/biology-clpl/royal-society-of-biology-annual-teachers-meeting/</p>
<p>SSERC: Practical Techniques for Recently Qualified Biologists</p> <p><i>Dates: 23rd February and 25th May, 2021</i></p>		<p><i>Click on QR code or tap the URL below.</i></p> <p>https://www.sserc.org.uk/professional-learning/secondary-clpl/biology-clpl/practical-techniques-for-recently-qualified-biologists/</p>
<p>ASE: Physics For Non-Specialists Online – Forces</p> <p><i>Date: 6th February 2021</i></p>		<p><i>Click on QR code or tap the URL below.</i></p> <p>https://www.ase.org.uk/events/physics-non-specialists-online-forces</p>
<p>ASE: Physics for Non-Specialist Online - Energy</p> <p><i>Date: 27 March 2021</i></p>		<p><i>Click on QR code or tap the URL below.</i></p> <p>https://www.ase.org.uk/events/physics-non-specialist-online-energy</p>
<p>IOP: 46th Stirling Physics Teachers' Meeting</p> <p><i>Date: 20th May 2021</i></p>		<p><i>Click on QR code or tap the URL below.</i></p> <p>http://www.stirlingmeeting.org/home</p>
<p>RSB: Scotland: Royal Society of Biology Annual Teachers' Meeting</p> <p><i>Dates: 27th May 2021</i></p>		<p><i>Click on QR code or tap the URL below.</i></p> <p>https://www.rsb.org.uk/events?event=scotlandroyalsocietyofbiologyannualteachersmeeting</p>

Early Years, Primary and Secondary Teachers

<p>GTCS: Engineering STEM Learning – Primary Engineer</p>		<p><i>Click on QR code or tap the URL below.</i></p> <p>https://www.gtcs.org.uk/professional-update/research-and-practitioner-enquiry/professional-recognition/accredited-professional-recognition-programmes.aspx</p>
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Technicians

<p>SSERC: Safe Use of Fixed Workshop Machinery (Refresher)</p> <p><i>Date: 4th February 2021</i></p>		<p><i>Click on QR code or tap the URL below.</i></p> <p>https://www.sserc.org.uk/professional-learning/technicians-clpl/safe-use-of-fixed-workshop-machinery-refresher/</p>
<p>SSERC: Safe Use of Fixed Workshop Machinery</p> <p><i>Dates: 20th March 2021 – 21st March 2021</i></p>		<p><i>Click on QR code or tap the URL below.</i></p> <p>https://www.sserc.org.uk/professional-learning/technicians-clpl/safe-use-of-fixed-workshop-machinery/</p>
<p>SSERC: IOSH Working Safely</p>		<p><i>Click on QR code or tap the URL below.</i></p> <p>https://www.sserc.org.uk/professional-learning/technicians-clpl/35349-2-2-2-2/</p>
<p>SSERC: IOSH Managing Safely</p>		<p><i>Click on QR code or tap the URL below.</i></p> <p>https://www.sserc.org.uk/professional-learning/technicians-clpl/35349-2-2-2-2-2/</p>

ASE Scotland Conference 2021

13 March 2021

09:00 - 17:00

The Edinburgh Academy



<https://www.ase.org.uk/events/ase-scotland-conference-2021>

The ASE Scotland Conference is a festival of best practice in science education for everyone with an interest - teachers, technicians, lecturers, trainees, advisors, CPD suppliers and more. Discounts are available for ASE members.

We are planning this to be a face-to-face event but should government guidelines change then this may become an online event.

In addition to supporting teaching in biology, chemistry and physics, the conference will explore primary science and careers in STEM. There will also be a full exhibition of support and resources for science education at this conference.

4 DAYS

25 EXHIBITORS

89 PRESENTERS

220 HOURS OF CPD

ASE Annual Conference Online 2021

Wednesday 6th -
Saturday 9th January 2021

Click on QR code or tap the URL below.

<https://www.ase.org.uk/events/ase-annual-conference-2021-online-in-january>



Education Division Scotland Inspiring Young Chemists

P7-S1 Transition Projects

Up to £200 available

Due to the impact of COVID-19 we realise that usual transition events may not be possible. We'd like to offer funding to create innovative and interesting resources (virtual or otherwise) with a chemistry focus that could be used to enhance the transition from P7 to secondary school. The resource should be one that could also be used in future years.

This is a chance to create something different due to the constraints of this particular academic year.

RSC Education Coordinators Stephen, HendryS@rsc.org, and Laura-Alexandra, smithla@rsc.org, are very happy to offer support to schools with successful bids.

For more details and an application form, email Katy Alder: alderkaty@hotmail.com

The closing date for applications is **29th January 2021**.

As you are aware COVID is providing a challenging environment to us all in the workplace. However, we want to be able to offer, on behalf of the Royal Society of Chemistry Analytical Division (RSC/AD) and the Analytical Chemistry Trust Fund (ACTF) a Schools' Analyst Competition in 2021. However, it will need to be operated very differently.

Register your interest to host a heat within your own schools / colleges in this annual competition (6th Year Chemistry students)

- Schools / colleges can register their interest to host a heat through RSC Events, and 200 will be selected at random to host this year.
- These 200 schools / colleges will be able to operate as an individual heat of the competition; the possibility of up to ten teams of three students participating to identify an overall school / college winner.
- Each winning team from a school / college will then compete across all 9 RSCAD Regions (East Anglia Region; Midlands Region; Northern Ireland Region; North West Region; North East Region; Scottish Region; South East Region; Western Region; and Republic of Ireland) to find regional winners.
- All activity will be recorded and monitored via a dedicated on-line portal.
- The competition itself will be based on flame tests, thin layer chromatography and test tube reactions for anion analysis; all linked to a scenario / case study.
- Supplies for participation in the competition will be posted to schools / colleges as well an opportunity to receive a bursary for additional items.
- Prizes will be awarded at School / college level for the winning team members, and regional level for school and team members.

We ask that you disseminate the contents of this email to your school / college contacts and invite them to register their interest in participating in the Schools' Analyst Competition 2021.

The weblink is: <https://www.rsc.org/events/detail/45815/schools-analyst-competition-2021>

Each school / college contact will need to provide the following via the link:

- Name and postal address of school / college.
- Contact teacher name and email address.
- Number of three person teams participating within the school / college competition.



The deadline for entry into the competition is 26th February 2021.

The competition will be live from 26th April until 28th May 2021.

On behalf of the Analytical Chemistry Trust Fund and the Royal Society of Chemistry Analytical Division we wish to pass on our thanks for your continued support of the Schools' Analyst Competition.