



Secondary and Further Education (SaFE) Group Newsletter December 2018

A Happy Christmas and Happy New Year to all SaFE group members, and welcome to all new members.

The SaFE group was formed in 2015. Its overall aim is to bring together teachers and educators from all levels primary, secondary, further education, work-based learning and higher education.

Our annual conference aims to have something for everyone although the content varies year by year. This year's theme is "inspiring the next generation of chemists"

Last year we had a focus on secondary, the "A" level curriculum and HE interface but this year will be a little different as we have Helen Sharman CMG OBE the first British Astronaut as our key speaker. Helen is an amazing and inspirational speaker so we are looking forward to her being at our conference.

We will be including work-based activities and apprenticeships. As 2019 is the International Year of the Periodic Table (IYPT) we will be having presentations and workshops on IYPT as well as looking at the GCSE changes and curriculum. There will also be some hands on practical activities so there will be something that appeals to all educators.

We try to have our annual conference in different locations giving the chance for teachers from different areas of the country to attend and this year we will be going north to Manchester where Bolton School will host us.

In 2018 we were delighted to extend the SaFE group presence at another conference and Prof. David Read the organiser of the RSC Mid-Southern Counties Conference has given us a short report, please see this information below.

Apart from the conferences, we have been building up our social network presence so please visit our website www.rscsafegroup.wordpress.com. or our Facebook site www.facebook.com/RSCSaFE or follow us by twitter.

Please see our conference report for July 2018 below and you can find more details (and photos) of all of our previous conferences (2015/2016/2017 and 2018) on our website. If you have any ideas for events or if you want to take more or a part with the SaFE group please contact us.

RSC Secondary and Further Education Group (SaFE) 4th National Chemistry Teachers and Educators Conference, "Transitions Post 16 and Moving On" was hosted at Birmingham University, Tuesday 3rd July 2018

Approximately 75 delegates including speakers and the committee attended this one day SaFE educators conference, and it was good to see several representatives from the RSC attend the day. We continued to have poster exhibits; (Educational Coordinators, SciChem, Peter Hoare - Free post-16 resources on line, Birmingham University- Chem Bam, University of Wolverhampton), over the breaks which were attended well by delegates. As ever, networking was popular and delegates took the chance to catch up, meet new colleagues and catch speakers during the breaks.

Professor Jon Preece welcomed the delegates introducing the School of Chemistry at Birmingham, he was pleased that we had come back to Birmingham for our 4th conference and wished us a valuable and enjoyable day.

As the SaFE chair, I welcomed the delegates, explained the format for the day and introduced our Key Note Speaker Professor David Read who presented “A” Level Chemistry, the role of the teacher. David is an excellent speaker who engaged the audience getting us to think about the pedagogical side of our teaching and incorporated “clickers” for audience response questions throughout his presentation.

It is important teachers have the opportunity to network through this conference and the breaks are as valuable as the presentations so after a short break we went into the presentations that would be offered in more depth for the afternoon breakout sessions.

Hilary Jefferys delivered an engaging presentation about changes to apprenticeship training and brought the new T-levels to the attention of the audience. Many of our students will not follow the academic route and it is important that teachers can appreciate the benefit of vocational education and employability skills as an alternative for the more “hands on” student. Hilary introduced this to our audience with examples of her follow up presentation later.

Daniele Gibney from the RSC is working on the framework of the new curriculum. Daniele shared the work to date with the audience presenting the way that our subject will be covered as the curriculum is developed for the future, this is being developed by her team and looks at chemistry across the board. Daniele also offered a workshop later in the day.

Niki Kaiser presented on her current work in the classroom about the role of research. This is really a different approach for the school teacher. There has been research into educational techniques in the past but the main work published to date is in the HE sector, however, Niki and her team are inspiring the secondary sector to consider the research side of teaching which really gave teachers something to think about. Niki also offered a workshop later in the day.

Damian Riddle was the final speaker of the morning and presented about the reflections and outcomes from the new “A” level chemistry. The “A” level has had major changes going from the modular curriculum to a linear programme, and the practical work has a major emphasis through portfolio work. It is hoped that “A” level students will be more skilled with their practical work, they will be examined on practical work in written papers as well. This presentation was built on with a workshop session later in the day.

Lunch and networking was a valuable time, apart from meeting new people and sharing ideas. Delegates got the opportunity to see the various posters exhibited and had the chance to integrate with new colleagues and meet presenters in an informal atmosphere.

Afternoon Breakout Sessions:-

Hilary Jefferys and Robert Bowles session “applying for apprenticeships, what to do and how to do it, CV and interview tips from an employer perspective” a detailed look at the new T-levels which was very interesting and revealed some of the finer changes that would be coming in for vocational qualifications. Employability was discussed in depth and the value of those all important skills that students can develop in the world of work, applications and CVs.

David Read and Stephen Barnes talked about “essential knowledge for chemistry teachers – how would you define it?” which was a very popular session where they picked a specific part of the chemistry curriculum and discussed the challenges of delivery through a very interactive session.

Daniele Gibney developed the morning session “towards an ideal chemistry curriculum” This session was one of many Daniele has been carrying out to engage the education community in forming the RSC Curriculum model. Most of the time was spent analysing the key aspects of the document and feeding back through discussion.

Bob Worley was back by popular request and delivered another engaging session on “microscale chemistry at “A” Level”, a number of small scale advanced experiments. Bob always comes up with innovative ways to carry out practical safely for many of the complicated experiments we offer.

Niki Kaiser used her session to continue with her research theme “But what does that look like on a Tuesday (period 5) Using research to inform Chemistry teaching” a very interesting session. It was discussed that we should be aware of trial and apply research, don’t just assume something work in your own class just because it worked in another, educational research seems to be personal to the teacher. A few methods of research were trialled and shared to get delegates thinking.

Damian Riddle was discussing “reflections and outcomes from the new “A” level chemistry – specifications and assessment” where delegates considered the spread of results on the new course which generated interesting discussions with positive comments on the practical endorsement and discussions on the content and difficulty of exam questions. Possibly there will be disappearance of AS levels in the future

Nicola Rogers (University of Warwick) and Zoe Schnepf (Birmingham University) shared Birmingham chemistry departments “Chem Bam – new online learning resources for students and teachers, engages students with current research themes in chemistry. Many teachers took the opportunity to find new electronic resources for their classes during this session.

Dr Peter Hoare was our plenary lecturer with his popular lecture colourful chemistry filled with many fun but spectacular demonstrations that teachers would be able to deliver in their own schools, see photos on our website. A nice way to round up a busy day.

Closing remarks, I announced that the next conference would be on Tuesday 2nd July 2019 at Bolton School in Manchester, watch this space for the 2019 news!

Some 2018 Conference feedback from delegates – advertising through social media helped improve awareness of the event with RSC members but we still need to do more to reach out to others. Booking and registration were easier to use, as systems bed down and become familiar to people. We also took the opportunity to improve the links to the venue website, particularly

with regard to directions. The venue was easy to get to, and the facilities good. Following feedback from last year, we extended networking time, and this was well received. There was also increased satisfaction with the afternoon breakout sessions. The format we have adopted is well liked, and we look forward to a similar format in Bolton next year.

Report on SaFE / RSC Mid-Southern Counties LS Post-16 Teachers Conference

The 11th Annual Wessex Group Post-16 Chemistry Teachers' Conference ran on June 27th, with funding and support from both the Secondary and Further Education group and the Mid-Southern Counties Local Section of the RSC. Around 40 teachers from 30 schools and colleges attended, and the event kicked off with an introductory talk from Andy Brunning, Chemistry Subject Specialist at OCR (a.k.a. @compoundchem), which outlined some of the research they have been doing around the assessment of practical work. David Read then gave a talk titled 'What makes a good chemistry teacher?' which probed teachers knowledge of some aspects of current educational research as well as sharing some possible approaches to help students get their heads round the most challenging aspects of the discipline. The morning session closed with a talk from Naomi Henna on her work using oracy as a technique to enhance learning from practical work. Teachers were broken into small groups in the afternoon, when they attend a sequence of workshops. Feedback was positive as always, and numerous delegates were heard to say "See you again next year!" as they departed. ***Prof David Read - University of Southampton***

Activities for 2019

RSC 5th National Chemistry Teachers and Educators Conference to be held at Bolton School Manchester on Tuesday 2nd July 2019.

Our programme is still being prepared but we are excited to announce that our Key Note speaker will be:-

Helen Sharman CMG OBE, the first British Astronaut.

The 8th European Variety in University Chemistry Education 17-19th July 2019. Monash Prato centre Tuscany, Italy.

The SaFE group are sponsoring this conference so watch out for more details, this will be a great conference for networking on an international level. This conference focuses on both Secondary/FE and Higher Education.

The SaFE group look forward to seeing you at the 2019 conference and / or hearing about any suggestions you might have.

Thanks.

Dr Julie Hyde, CChem FRSC. SFHEA.

Chair of the Secondary and Further Education (SaFE) group.