

## Supporting our members in difficult times

From time to time, large issues arise that impact on schools and colleges across Scotland. Where these involve Science and Technology in particular, SSERC is ideally placed to offer free advice and assistance to help our members through it.

### COVID-19

During the pandemic, we have been working with the Scottish Government to make sure that we can offer clear guidance for science and technology departments, which have some specific and challenging problems as a result of their practical, experimental nature.

We dealt with hundreds of emails and phone calls and produced some extensive documents with detailed guidance on:

- How to arrange classrooms/laboratories/workshops for the maximum separation.
- How to clean & sterilise eye protection
- How to change experiments or choose alternatives in order to reduce the need for currently scarce PPE.
- How to adjust experimental work to minimise sharing of equipment.
- How to disinfect laboratory/workshop equipment between uses.
- Whether particular experimental work, such as microbiology, can still be carried out in these times (it can).
- Guidance on appropriate methods for cleaning/ disinfecting laboratories and classrooms and what effects there might be both on equipment and on human health.

In addition to this, during the lockdown, we produced numerous video resources on our SSERC-TV Youtube channel to help with teachers' sterling efforts in continuing learning for their pupils at home.

We also produced a variety of experiments that can be safely carried out at home.



Image: Julia M. Cameron / Pexels.com

While these were originally developed for a situation when everyone was at home, they will continue to be useful for situations when learners, either individually or in groups, are in isolation again.

### Asbestos-containing gauzes

In late summer 2018, news broke that there was a significant issue of contamination of the ceramic centres of certain types of Bunsen burner gauzes with asbestos fibres. The level was not hugely high but was certainly above the legal limit.

SSERC worked with the HSE and other bodies to produce helpful and proportionate advice for schools and colleges to help them deal with the situation, including:

- Which, if any, other materials were affected
- How to safely remove the gauzes from circulation for disposal.
- How to safely store these materials while they await uplift.
- Who could do this safely and what training they would need.
- What certification was needed to ensure that either current or, more likely, future purchases were asbestos-free.

In addition, SSERC provided advice and reassurance to many teachers, technicians and others across the country who were somewhat alarmed by the word 'asbestos' being used in relation to their classrooms and prep rooms.



BOOM! by Simon Q from United Kingdom (uploaded by High Contrast, CC BY 2.0).

## 2,4-DNPH

In 2016 there was something of a panic across the UK due to a chemical called 2,4- dinitrophenylhydrazine (2,4-DNPH). If this gets very dry, there is a theoretical risk that it can explode.

As long as it is kept moist when stored, there is no danger. In much of the UK, however, advice was given that if it was not stored in a very specific manner then it should be assumed to have dried out and thus should be considered to be explosive. As a result, hundreds of schools across much of the UK called in EOD (the bomb squad) who set about a series of controlled explosions in various school grounds.

Quite a number of schools in Scotland also had 2,4-DNPH in their chemical stores and were understandably concerned. This was made more difficult as at the time, none of the disposal companies were agreeing to take it.

SSERC took the pragmatic position that as there was no likelihood of explosion from leaving it untouched on the shelf for a few more weeks or months. We reassured the teachers and technicians who had been in touch and set about talking to disposal companies.

As we anticipated, after a few weeks the first company agreed to dispose of this chemical and was gradually followed by the others.

The end result was that, in contrast to other parts of the UK, to the best of our knowledge, EOD were not called in to any schools in Scotland and the situation was resolved without alarm.



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