

Science needs a spark...

To inspire the next generation of practical scientists, teachers must find way to maintain their own love for the subject.

Science is everywhere. Maths, physics, biology and chemistry are the bedrock of technologies, industries, economies and education, particularly technical education. That's great if you're a science teacher or an enthusiastic science student, but less good if you're not! Science is plagued by perceptions of difficulty, and we lose able students at each stage of the pipeline as they often choose other subjects that they perceive will be easier.

Alison Ackroyd has worked in the FE sector for over twenty-five years in London and the South-East and she is an [Education and Training Foundation & Royal Commission Technical Teaching Fellow](#) leading on MidKent College's Applied Science and T Level delivery. We caught up with Alison to find out more about the work she does to support post-16 Science teaching, and how joining a network of science teaching professionals is invaluable for the development of the sector.

Alison believes that one of the ways we can help to develop and retain scientific talent to meet the workforce demands of the sector is to ensure that teaching staff continue to nurture their own passion for all things science, explaining that "Science delivery in post-compulsory education is a complex synergy of knowledge and practical skills in context. That can be a challenging mix which really tests your dual professionalism. You need to keep up to date with current developments and careers in your field and interweave the narrative of the professional scientist into your teaching."

"This is particularly important when we consider the abilities of students, and also their aspirations for the future. I have many lovely T Level students interested in an incredibly diverse range of scientific disciplines. I'm confident that they will develop practical and technical skills to carry forward into employment or into a STEM academic degree, and they will certainly be 'lab-ready' by the time they move on, but it's so important for me to retain my own passion and interest in topics that are likely to raise their aspirations for the future and the crucial role that they'll play in future scientific development."

But if energy and enthusiasm are key to helping teachers keep science at the forefront of students' education and employment ambitions, how does Alison keep the flame of her own passion for science alight?

"I'd advise teachers to play to their strengths, and to seriously consider working in partnership with other teachers and with employers to stay inspired; you don't have to 'go it alone'. One of my colleagues is an analytical chemist so he has lots of experience that he can use to deliver the Good Scientific and Clinical Practice curriculum content that focuses on procedures for working in scientific environments, such as Standard Operating Procedures (SOPs). That gives me the opportunity to be inspired by the incredible knowledge and practice of my own team, while ensuring that students have their eyes open to the real-world application of scientific knowledge.

I'm fortunate that the new T Level Science qualification affords me a degree of creativity, meaning that I can look for natural opportunities to make lessons more interesting by bringing in current affairs, news,

practical work and guest speakers from a range of different industries that rely on scientific development to enhance and grow their businesses."

The theme of not flying solo fueled Alison's interest in joining and helping to build extended networks of science teachers across the UK to develop communities of practice. If you're interested in finding out more, Alison helpfully signposts the following:

[The Association for Science Education](#) - holding a Royal Charter to improve the teaching and learning of science, the association offers individual and corporate memberships, and maintains a network of 684 volunteers working across the UK to sustain local science teaching clusters.

[STEM Ambassadors](#) - available to support teaching and learning through real-life examples of the links between education and industry, support to set up STEM clubs in schools, and advice for non-specialist staff. Of particular interest, is the [Post-16 Remote National Science Network](#).

[Industry Insights](#) – a program of encounters with industry to upskill your technical knowledge run by the Education and Training Foundation.

If you'd like to speak with Alison about joining the networks she is involved in, how to sustain your enthusiasm for science teaching, or her role as a STEM Ambassador and how she can support you, email Alison.Ackroyd@midkent.ac.uk.