



Parliamentary and



Scientific Committee

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Science Education: Supporting the UK as a Science Superpower

The science industry is one of the fastest growing industries in the UK and it's only getting bigger. As the job opportunities in STEM increase it's becoming more vital that the students of today have the passion and drive to become the scientists of tomorrow. This discussion meeting focused on how the UK is moving forward to provide a first-class STEM education for students from all backgrounds. Our guest speakers, Baroness Brown of Cambridge, Allie Denholm, and Donald Morrison all gave passionate presentations about the work of STEM Learning and Jacobs and how CPD and STEM ambassadors are utilized within the education system.

STEM Learning works to provide both support and role models for both teachers and students. One of their aims is to increase the pupils understanding and knowledge of the extensive range of job opportunities within the science industry. Once their minds have been opened to all the prospects within STEM, students can begin to build their skill sets for fields of interest. With only 24% of the core-STEM workforce being made up by women and BAME men being 28% less likely to enter a career in STEM, the diversity of ambassadors is incredibly important. This is something that has been of focus to Jacobs, with currently over half of their STEM ambassadors are female. Baroness Brown also highlighted that often the ambassadors are younger, and have often only recently graduated themselves, which can help when building relationships with the students.

All students across the UK deserve a high-quality STEM education, and in order to achieve this it is important to target disadvantaged areas. As Morrison stated, there is certainly no shortage of passion to provide this, but it's impossible for

one company to cover all localities. Within the disadvantaged schools gaining the trust and support of the parents and guardians can present challenges. For many their own school experience was not a positive one and returning to that environment may feel intimidating. As headteacher, Denholm has worked hard to build that all important relationship and has done so using a variety of non-confrontational activities and support sessions. This is a process that takes time and requires a lot of patience; however, the rewards are invaluable to student progression.

From Primary through to Secondary school there are many different areas of focus for STEM learning to tackle. Currently, the Government funding prioritises the Secondary age group above Primary, however STEM learning is still working to support these teachers. They provide special CPD courses for Primary teachers and huge amounts of online resources, including sample lesson plans. Practical work is vital as it increases student's skill sets while also being fun and engaging, however pressure on the curriculum is putting strain on providing these hands-on sessions. Therefore, extra-curricular activities such as science clubs and mini science projects are of ever-increasing importance. Another aspect of the curriculum that has been lost is the drive to understand the scientific community, reducing the focus on STEM careers.

The outbreak of Covid-19 in early 2020 had a huge impact on students across the UK and has changed the course of teaching for the foreseeable future. Following the lockdown teachers now face a battle catch up lost time and work, whilst also reigniting the student's passion for science. A real concern looking forward is the inability to grow teamworking skills under the

new classroom restrictions, a vital skill that is used across all STEM disciplines. However, a positive to take from this uncertain time is the improvement of virtual communications. Students, teachers, ambassadors and more can connect online from all over UK with great results, this has been proved by Jacobs who successfully hosted a virtual internship programme over the summer this year.

For many within the science community, from engineers and chemists to lab technicians and STEM teachers, their curiosity and excitement began in the classroom. STEM education is much more than just exams and assessments, there are a wide range of practical and social skills to be learned that are utilized throughout careers in science. Now more than ever the scientific community must pull together in support of teachers and students to help inspire the future generations of scientists.

Charlotte Hall

P&SC Discussion Meeting, 'Science Education: Supporting the UK as a Science Superpower', 28th September 2020