Philip Harris Education
2 Gregory Street,
Hyde,
Cheshire,
SK14 4TH

Tel: **0345 120 4520**
Freefax: **0800 138 8881**
Email: **orders@philipharris.co.uk**
Web: **www.philipharris.co.uk**

Since 1817 philip harris

29th April 2016

Dear Sir or Madam,

Please find below our written submission of answers to questions regarding the inquiry into how well our schools are preparing young people for their future, with a particular focus on their readiness for the workforce. For your background, Philip Harris is a specialist supplier of science education and is about to celebrate its 200 year anniversary.

1. **What should our schools be focusing on in order to prepare young people for the future?**

   In our humble opinion, schools should be focusing on a providing good academic knowledge of each core subject which will allow pupils to pass exams and go to university and/or work. From a science point of view, academic (theory plus practical skills) knowledge must be taught to enable pupils to learn and understand the basics. However, other skills such as teamwork, budgeting, presenting, reporting should also be taught and practiced as these are fundamental to science in the real world. As well as understanding a theory, pupils should be able to demonstrate and explain it. Too often the theory is the only part taught.

2. **Should schools play a role in developing skills, or should subject knowledge be prioritised?**

   Skills within each subject should be taught as well as subject knowledge. So in science, carrying out practical science is key. Science should not be taught without allowing students to use equipment to experiment. More generic skills should also be developed such as working in group, discussing ideas, putting theories into practice, building models, budgeting projects, sourcing equipment and working to deadlines. Many of the skills are encouraged in clubs after school hours but not always within in lessons.

3. **Who should be responsible for ensuring that young people develop soft, financial and entrepreneurial skills?**

   This should also be taught as part of Maths and Business Studies GCSE. However it should be encouraged in all subjects. The ICT classes should also teach everyday computing skills: as well as coding etc., essential EXCEL and WORD skills should be taught. How many pupils are taught how to use a *vlookup* which most people in an office environment use frequently?

Philip Harris Education
2 Gregory Street,
Hyde,
Cheshire,
SK14 4TH

Tel: **0345 120 4520**
Freefax: **0800 138 8881**
Email: **orders@philipharris.co.uk**
Web: **www.philipharris.co.uk**

Since 1817 philip harris

4. **Do education providers have the resources to prepare young people for the workforce?**

In our experience, often schools do not have the resources to prepare pupils for the workforce as few teachers have worked outside of schools. In schools' science departments, many of the technicians may have worked in industry but not are consulted or used to demonstrate or talk about science in the "real world" . Therefore knowledge of the workforce outside of academia is reliant on bringing in third parties (e.g. parents, local businesses, STEM ambassadors, etc.) and so depends on the teacher or school's network and willingness to find people.

Organizations like STEMNET and GO4SET work well to join schools and people working in the science world but are not compulsory, so rely on teachers' enthusiasm. Furthermore our school teachers' number one concern is teaching the curriculum and getting pupils ready for exams. So non-compulsory extra-curricular activity is often sacrificed to ensure that the core curriculum is covered. On the other hand, they rely on employers allowing their employees time out of the office to carry out the activities.

5. **To help the APPG create a practical set of approaches and recommendations:**
    1. **What example are there of schools and colleges preparing young people well for the workforce?**
    2. **What examples are there of employer-led initiatives that have had an impact?**

Unfortunately, we have little experience of this. As already mentioned the STEM ambassador programmes ran by STEMNET allow students access to people in the workforce. I believe that SIEMENS in Manchester run interesting initiatives but have no further knowledge of it.

I hope the above is of interest. Please contact me if you have any further questions.

Yours sincerely,

Esther Bousselham
Science Buyer