

Special Edition Newsletter for Supervisors and potential Supervisors in London and the East

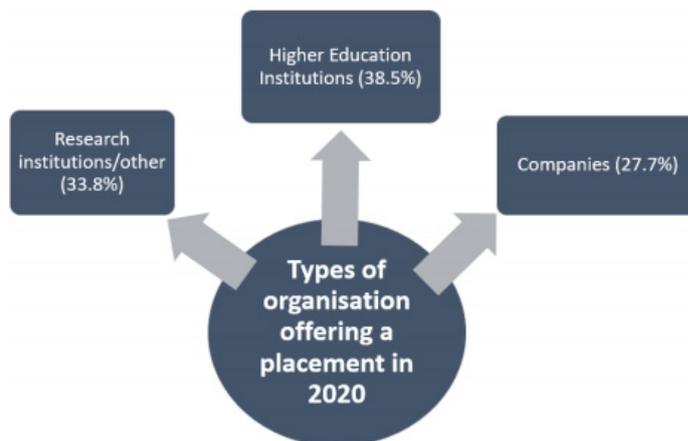
Nuffield Research Placements 2021

STEM Learning are now responsible for the operation of the Nuffield Research Placements Scheme and will maintain the aim of providing high quality research placements to talented students from disadvantaged backgrounds:

<https://www.stem.org.uk/nuffield-research-placements#for-employers>

**Join us for the 2021 Launch event on
7th December at 11am.**

Click <https://forms.gle/WiZoe2oERuPL2o5YA>
to register for this information session.



During 2020 nationally, 175 organisations took part and 960 students completed projects.

In London and the East 65 organisations took part and 222 students completed projects.

**100% of students were from low-income homes or are first in their family to go to university.
Without the support of supervisors this would not be possible**

Could you be a Project Supervisor in 2021?

Out of 628 shortlisted applications, we were able to offers placements to 242 students in 2020. We need your help to increase this number

- You would need availability for TWO WEEKS during July/August 2021
- Supervision of project is online via a safe online platform (with visits to workplaces possible, if restrictions allow)
- Support students with a written report and poster
- Most of our supervisors are also STEM Ambassadors - click here to find out more:

<https://www.stem.org.uk/stem-ambassadors>

Could you inspire a young people to gain STEM skills through research work?

There is NO DIRECT COST for taking part – just a willingness to supervise a young person at the start of their STEM career

We have the chance to influence aspiring young scientists
- Nuffield Supervisor

It was a unique and interesting experience that helped me make important decisions
- Nuffield Student

I had a fantastic opportunity to develop my research skills and learn more about science and technology
- Nuffield Student

Students have grown in confidence and self-belief by working with us
- Nuffield Supervisor



If you are registered as a STEM Ambassador, don't forget to log your Nuffield supervision as an activity. You are able to log at least 80 hours for your work with your student (s) for 2020.

<https://www.stem.org.uk/stem-ambassadors>



More than 80 students from our region were awarded a CREST Award in 2020 for their Nuffield work and there are still students in the process of submitting their work or awaiting the result of their application.

Further informaton can be found here:

<https://www.crestawards.org/>

Research Case Studies from 2020



ONLINE PRACTICAL HOME RESEARCH PROJECTS

Dr Michael Batham: Laboratory Manager School of Life, Health and Chemical Sciences STEM Faculty

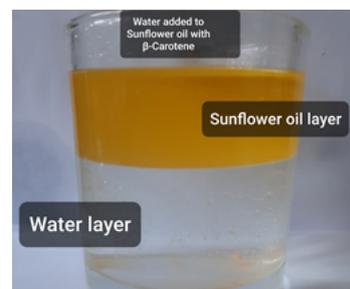
During the summer 2020 chemistry staff supported the Nuffield Future Researchers Scheme with online home research projects as an alternative to being based within the teaching labs. A-level students participated in research projects at home, working with OU experts in a virtual learning environment. Drs Mike Batham, Simon Collinson, Jo Handford and Rob Janes from the OU supervised 3 students in these research projects.

These experiments used smart phones for spectrophotometric analysis and involved either the synthesis of polymers, extraction of pigments or the study of the adsorption of a dye from water. In September these students were awarded their Gold CREST awards and presented their work as posters at a virtual celebration.

These projects were designed to help develop home experiments for the new modules S248 *Chemistry in Life* and S285 *Investigative approaches in biology and chemistry*. Currently this research is continuing with some apprentices at the OU.



Figure 1 showing plain paper being used as an absorbent to adsorb the food dye



In this project the Nuffield student was looking at the extraction of β -carotene initially from carrots and then a food supplement capsule was used which had a known quantity of β -carotene. A comparison was between different type of oil in this case sunflower (vegetable oil) and baby (mineral oil).

Great Ormond Street
Hospital for Children
NHS Trust



- Vicki Heath - Lead Assessor for Healthcare Science Apprenticeships for the National School of Healthcare Science, Great Ormond Street Hospital

Over the summer I had two year 12 students on a remote research placement. I am really passionate about science communication and public engagement, but there is no published research on healthcare science education. To address this, the students carried out projects that investigated ways in which healthcare scientists could effectively communicate their career with UK secondary school students.

Their work has already made an impact. It has been used to inform the social media strategy for Healthcare Science Education and the Science4U School's Science Conference. This has included the Healthcare Science Education team successfully apply for funding to develop content for

YouTube and TikTok channels that were both launched in October 2020. Abstracts from both projects were submitted to the GOSH Conference. They were accepted as digital poster presentations which means the abstracts will be published in the BMJ and the posters will be shared with all staff at GOSH. Despite the programme having to very quickly adapt due to COVID-19 restrictions, I found the process to be really rewarding. The co-ordinators at Nuffield were incredibly supportive, the students really engaged with project, and it had already made a difference to the way in which we engage students. And so far, none of the videos I've had to make for TikTok are too embarrassing.



**- ESCoE Research Associate,
Charlotte Meng**

Two students from the Nuffield Future Researchers programme during summer 2020. The project concerned: "COVID-19: Measuring the effects of Covid-19 on businesses and the UK economy". Find out more about Charlotte's experience working with Nuffield students here:

<https://www.escoe.ac.uk/a-level-students-engage-with-escoe-research/>



The Aviatrix Project was founded by Kanchana Vanhove in 2015. The aim of the project is to raise awareness, particularly amongst women and girls but also young people from diverse backgrounds, about aviation as a potential career choice. Working with schools and aviation organisations their aim is to inspire those we work with to learn to fly and to enthuse them about aviation. To learn more please visit their website:

<http://www.theaviatrixproject.com/nuffield-future-researchers>

THE AVIATRIX *project*

'Ultimately I believe that we can use aviation as a tool to raise aspirations. I want to encourage young people – particularly young women – to believe in themselves and to know that there are no limits or barriers to achieving anything they set their mind to. Blue skies all the way!' -
Kanchana Vanhove - Founder & Director

'As an aspiring aerospace engineer, looking at the different ways in which global events have frequently affected aerospace companies has given me an idea of the possible challenges that I could face while working in this field. The human factors research that I carried out also educated me about the effects that a global event like COVID-19 has on engineers. Additionally, while working on this research programme I have also got the opportunity to improve my time management and organisation skills, both of which are important skills which I believe will be very useful during my time at university and in my career. Overall, working on a research report closely with a professor has been a great experience as I have been able to learn a lot about researching and report writing in a relatively short amount of time'

- Krishna Nair (Nuffield Student 2020)

'Supervising and guiding Krishna through the project was a very gratifying and humbling experience. Since he was my first Nuffield student, I had no idea what to expect from a 16-year-old and I wasn't quite sure what supervisory approach to take as I usually deal with Master and research students. I needn't have worried. Right from the start Krishna was very engaged in our discussions about the direction of the research, he picked up things incredibly fast, and he was able to apply his newly acquired knowledge very well into his various drafts right from the outset. In fact, he was so switched on that I decided to see whether he could manage to make an original contribution, which he rather successfully did with his comparative analysis of Airbus and Boeing's response to Covid-19 and similar events in the past. I'm very proud of this first Nuffield student of mine, and I hope there will be more to come'

- Bettina Bajaj (UCL)



Contact details:

For further information about the Nuffield Research Placements scheme or to register your interest in offering a placement for 2021, please contact:

Sally Moore

s.moore@stempointeast.org.uk

<https://www.stempointeast.org.uk>

<https://www.stem.org.uk/nuffield-research-placements>