Research Placements & Experiences

Formerly Nuffield Research Placements

Research Placements 2024 Guide for Placement Providers

Introduction

You may be familiar with Research Placements from having been a placement provider in previous years or this may be your first encounter with the programme. Whether your connection is new or existing, the programme team and our network of National and Regional Coordinators are very much looking forward to working with you.

For the entirety of the placement, research placements remain centred around access to and collaboration with a knowledge expert that results in high-quality, meaningful outputs for both the student and placement provider. We will be looking for placement providers to fulfil a subject-specific role when mentoring and guiding these young people through a structured experience. This partnership with placement providers will be a novel experience for many students and also, therefore, an exciting one.

This document sets out the broad terms of the revised Research Placements programme, what we would expect placement providers to do and what we expect of the students.

The Research Placements programme

Profile of students

STEM Learning and its Regional Coordinators oversee the recruitment of students to the programme. The students we focus on are high-attaining, motivated Y12 or S5 students from first in family backgrounds and/or socially and economically disadvantaged families that are on a post-16 education pathway to develop their science, technology, engineering or mathematics (STEM) skills. This allows us to include a wide range of A-level, Scottish Higher or equivalent qualifications, including those that have a strong focus on data skills.

Students identify four subject areas of interest that they would like to explore via a placement. Once selected for the programme, our Regional Coordinators will act to help match students' interests to the available project topics. Exact or close matches are not always possible, so we encourage students to be very open-minded about tackling topics that are outside their immediate areas of interest. Research and development are an increasingly interdisciplinary matter and students can really benefit from exploring new subjects and themes that their focus at school or college may not bring into view.

Student activities and associated supervisor input

The Research Placements programme will see students guided through the following: -

 an independent study support package developed in partnership with the British Computing Society and consisting of online module assignments designed to develop essential professional, research, data and digital skills and help prepare students for tackling the research or development project.



- collaboration with a knowledge expert on a 'live' research question relating to an area of science, quantitative social science, computing, technology, engineering or maths (or a combination!) to develop essential STEM skills and result in a research poster & report.
 - Please see Appendix 1 for guidance on providing a research question or talk to your Regional Coordinator
- a timetable of optional supplementary workshops and webinars that are geared towards providing career learning and training on key topics e.g., Python programming language, critical thinking and education and employment pathways.

The key stage where the majority of input from a placement provider is required, is undertaking the research or development collaboration itself over two weeks on-site. We anticipate that this stage will comprise initial, introductory activities prepared by the placement provider, followed by more intensive collaboration, before finally concluding the placement with supporting the student to complete a final report and poster. We recommend, where possible, taking on more than one student under the same or similar project area so that they can act as peer support to each other and discuss the concepts, tasks and findings together to help reinforce their own learning.

The initial phase can include tasks such as the detailed analysis of research papers, associated materials and potentially some data analysis. The middle phase will be where more complex concepts, research methods, analysis and discussions occur before, finally, the students work towards communicating their findings. They will, of course, wish to refer to you throughout the process to help shape their thinking or test their ideas. For this, your own professional work systems can be used to provide avenues of communication. Where possible, we encourage hosts to provide students with experience of working with a range of colleagues. This helps expose students to a wide range of role models and gain experience of different positions within your organisation.

Students complete the programme by submitting their written work, which, for most, also triggers the payment of a £200 bursary when the programme concludes. This written work is in the form of a report and a poster. Students will have been provided with guidance and templates for both by STEM Learning and which are also available to you. As placement providers, you will hold more specialist and technical subject knowledge. We, therefore, encourage your constructive feedback on both pieces of work but support any decisions from you regarding setting clear boundaries with the student on what this feedback, and the processes around it, will look like.

We hope to showcase the students' achievements at a celebration event (or events) later in 2024, which you would be very welcome to attend. Moreover, students can use their work not only as part of their university applications but also for submission to the British Science Association Crest Awards scheme.



Timeline and flow of activities

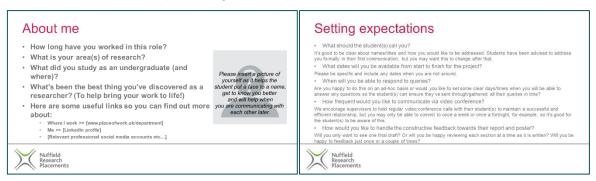
We anticipate the following timeline for the 2024 programme:

			N	
Oct 2023 – Mar/Apr 2024	Apr – Jun 2024	Jun – Jul 2024	Jul – Aug 2024	Aug – Sept 2024
				Communication of research findings through high quality report and poster
Applications are completed by students and eligibility screening	Coordinators complete matching of students to available projects	Students undertake initial independent study	Collaboration with a knowledge expert on a 'live' research question	Students to provide their final feedback
is undertaken by Coordinators	Virtual student and Project Supervisor inductions	support package	Optional student supplementary workshops & webinars	Reimbursement of student travel expenses and/or bursary payment (if applicable)
				Invitation to attend a celebration event



Introducing yourself as a placement provider

You may wish to introduce yourself to the student(s) you will work with ahead of meeting them in person to help them feel less daunted and provide them with some things they can talk to you about. We have a PowerPoint-based template for you to use (please ask your Regional Coordinator) to help convey a sense of who you are, your area of expertise and what excites you about your subject topic. From introducing this in 2020, we have had positive feedback from the students that this helped with preparing for their placement.



Safeguarding

As most of the students are under 18 years of age, we have developed a safeguarding policy (provided separately) that should ensure that both you and the students feel safe and secure in all of your interactions. We will ask that both you and the student read this safeguarding policy carefully and agree to adhere to it for the duration of your involvement with the Research Placements programme, by virtually signing an agreement form (provided separately).

Alongside this, you may wish to undertake some optional dedicated professional development on safeguarding. The National Society for the Prevention of Cruelty to Children (NSPCC) offers an online course for £25, which will be useful in any school-focused outreach work you undertake. You may also wish to consider obtaining 'basic disclosure' clearance from the appropriate national body¹ though this is not required. Any additional costs incurred from additional training or disclosure checks will need to be covered by your organisation.

Your Regional Coordinator and their role

The Regional Coordinators play a number of important roles in the delivery of the Research Placements programme. They will be involved from start to finish and will **be your key point of contact**, acting as a mediator between you and any student(s) you work with. You can find their contact details on <u>our website</u>.

The Regional Coordinators have been working to help identify eligible students that meet both our socio-economic and academic eligibility criteria. Part of this process involves asking students to identify areas of research that may interest them. In parallel, placement providers will be asked to highlight what projects they have to offer that are appropriate for a remote research activity, suitable for the age and ability group, and can be completed in a period of around two to three weeks (this period could be longer if the placement is completed part-time).

¹ England: https://www.gov.uk/request-copy-criminal-record

Northern Ireland: https://www.nidirect.gov.uk/services/apply-online-basic-check Scotland: https://www.mygov.scot/basic-disclosure/apply-for-basic-disclosure/

Wales: https://www.gov.uk/request-copy-criminal-record



We expect there to be relatively regular communication between Regional Coordinators and placement providers in the initial stages of placement discussion and regarding student and project selection. This may pick up again as the projects draw to a close when placement providers may wish to offer reflections back to the Regional Coordinator on completed work, the outcomes of the programme more generally, and how well the students have risen to the challenge.

The following table sets out some examples of the roles and expectations of Regional Coordinators and placement providers over the course of the projects.

Issue	Regional Coordinator	Placement Providers	
Student selection	Takes the lead and will work with placement providers to finalise a good match to a project.	Will work with Regional Coordinators to bring about a good match to project topics.	
Student induction	Initiate and prompt placement providers to complete their introduction slide set. Ensure students are clear about roles.	Responsible for project-based introduction and clarification/negotiation over topics and scope.	
Research projects – initiation and focus	Able to remind and clarify over roles, responsibilities and outcomes. Also, can play a role where there is any confusion or dispute.	Principal driver of the research project and the intellectual capital behind it. Able to guide and coach students to engage with data, literature and other resources.	
Research projects – conclusion	Oversight of outputs required to satisfy programme completion. Interaction with placement providers to gather feedback and reflections as well as final outputs.	Coach students to conclude research projects to expected standards and to draw legitimate conclusions and perspectives. Liaise with Regional Coordinators over feedback.	

We hope that this guide provides a useful overview of the Research Placements programme and the role of the placement provider.

If you have any further queries or concerns, please contact your Regional Coordinator via the details found on <u>our website</u>.

Appendix 1: Guidance on providing a research question

The first substantive task for placement providers is to propose a research or development topic or topics. Ideally, the research questions should be tight enough in scope that students can:

- Summarise the aim and objectives of the project within the wider context of the research (to include ethical, social and economic implications);
- Identify a range of approaches, select the most appropriate approach to investigate the research question and justify this choice;
- Make good use of materials and sources available;
- Select and use the research skills (and appropriate applications e.g., software packages) required to investigate, gather information, analyse, interpret data and outline findings.
- Have scope for students to meet other people within your organisation, increasing their awareness and experience of STEM related careers.

We expect students to spend 45 to 60 hours overall on all placement work over the two week period. The estimated input and time for placement providers will vary depending on the amount and timings of your availability, how much time you are able to commit to supporting students, how



many activities or tasks you would like to set them, and whether numerous feedback rounds are required for the final report and poster.

As a placement provider, it is possible that you may also want to be involved in the selection of the students – or you may wish to leave this up to the Regional Coordinator so that you can focus your energy and interest on the project. The extent to which you can be involved in the selection process is best agreed between you and your Regional Coordinator. Please also feel free to discuss any thoughts you have on your estimated available time and capacity with them, too. You can find their contact details on our website.

Appendix 2: Guidance on online supervision

For many of you, managing work, teaching, learning and/or mentoring remotely is an increasing feature of your lives. Colleagues at the University of Glasgow Researcher Development have produced some tips and hints² both to introduce some effective practice and to reassure you ahead of any online supervision (see below).

Supervising remotely: advice from the University of Glasgow

Be realistic about what you can do

You don't have to pretend you're 'on call': set clear limitations and communicate them to the student(s)



Be realistic about what your student can do

Assume your student is facing undisclosed difficulties & have realistic expectations



Make sure your student(s) access essential Nuffield Research Placements info

You don't need to mediate: remind them to check the Virtual Learning Environment



Establish your communications

Agree a frequency and technology that works for you both: manage expectations & demonstrate support



Signpost support networks

Now and then check that your student(s) aren't feeling isolated: direct them towards their teachers, coordinator or peer group



Help your student make the most of their time

Help them prioritise: signpost career development and training opportunities



Reassure your student

Everyone wants them to succeed and will do all they can to help: let them know there's plenty of support they can access if needed



You don't need to know all the answers

Contact your Nuffield Research Placements' Regional Coordinator if you have any questions or concerns



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² Some of these hints and tips have been amended to be relevant to the Research Placements programme

