

Nuffield Research Placements Guide for Project Supervisors

Introduction

You may be familiar with Nuffield Research Placements (NRP) from having been a project host 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.

The ongoing COVID-19 pandemic, and the resulting restrictions affecting schools, businesses and universities, has resulted in a shift of approach when it comes to NRP. No longer is there an expectation of a four-week on-site only placement that you may have been involved with before, but instead an exciting opportunity to explore the benefits and possibilities of blended learning.

If circumstances allow, we would very much encourage organisations to still host students on-site during the summer but for a much shorter timeframe of as many days that can be allowed up to a maximum two weeks. This can then be book-ended with virtual working to help set up and conclude the placement. If, however, no shortened on-site opportunities are possible given Government or your organisation restrictions, then we are happy to support an entirely virtual placement instead.

Regardless of whether or not you will be able to meet your student(s) face to face, NRPs remain centred around access to and collaboration with a knowledge expert that results in high-quality, meaningful outputs for both the student and supervisor. We will be looking for project supervisors to fulfil a subject-specific role when mentoring and guiding these young people through a structured experience. This partnership with project supervisors will be a novel experience for many students and also, therefore, an exciting one.

This document sets out the broad terms of the revised NRP programme, what we would expect project supervisors to do and what we expect of the students.

The Nuffield 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 NRP 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.
 - There is the option for supervisors to be involved at this stage, but it is not mandatory.
- 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 project supervisor is required, is undertaking the research or development collaboration itself. We anticipate that this stage will comprise initial, introductory activities prepared by the project supervisor for completion within a Virtual Learning Environment (VLE i.e., Google Classroom), followed by more intensive collaboration over two weeks either virtually or on-site, if possible, before finally concluding the placement back within the VLE. 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.

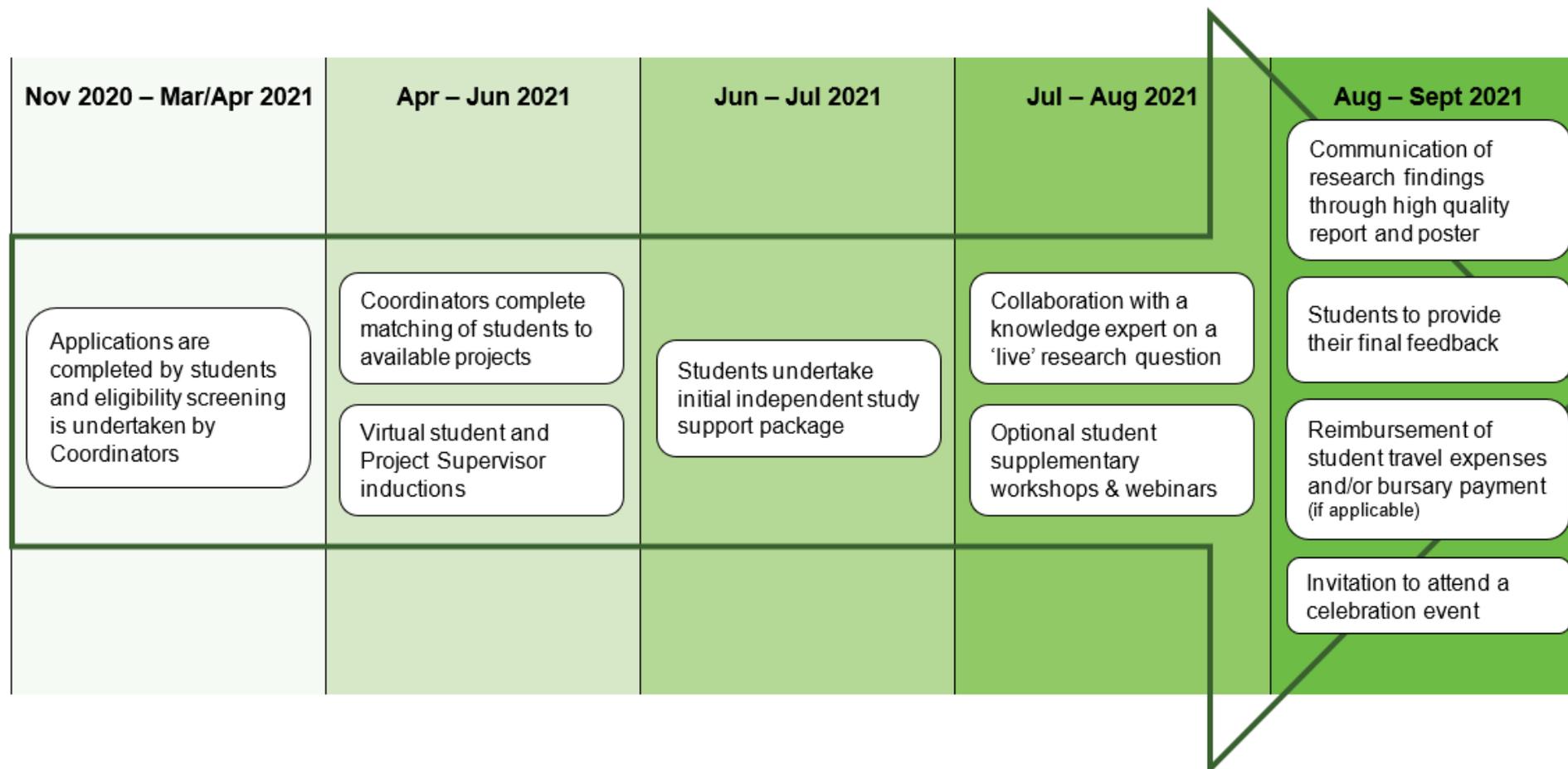
The initial phase can include tasks such as the detailed analysis of research papers, associated materials and potentially some data analysis. The middle phase will be where more complex concepts, research methods, analysis and discussions occur before, finally, the students work towards communicating 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, the VLE can provide avenues of communication via a virtual chat function and video conferencing. Where possible, we encourage hosts to provide students with experience of working with a range of colleagues. This helps students to see a wider 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 project supervisors will hold more specialist and technical subject knowledge, we 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 2021, 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 NRP 2021 programme:



Introducing yourself as a project supervisor

As initial activities will take place without opportunity for an induction meeting, we feel it would be useful for you to introduce yourself to the student(s) you will work with. 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.

<h3>About me</h3> <ul style="list-style-type: none">• How long have you worked in this role?• What is your area(s) of research?• What did you study as an undergraduate (and where)?• What's been the best thing you've discovered as a researcher? (To help bring your work to life!)• Here are some useful links so you can find out more about:<ul style="list-style-type: none">- Where I work >> [www.placeofwork.uk/department]- Me >> [LinkedIn profile]- [Relevant professional social media accounts etc...]  <p><i>Please insert a picture of yourself as it helps the student put a face to a name, get to know you better and will help when you are communicating with each other later.</i></p>	<h3>Setting expectations</h3> <ul style="list-style-type: none">• What should the student(s) call you? <p>It's good to be clear about names/titles and how you would like to be addressed. Students have been advised to address you formally in their first communication, but you may want this to change after that.</p> <ul style="list-style-type: none">• What dates will you be available from start to finish for the project? <p>Please be specific and include any dates when you are not around.</p> <ul style="list-style-type: none">• When will you be able to respond to queries? <p>Are you happy to do this on an ad-hoc basis or would you like to set some clear day/times when you will be able to answer any questions so the student(s) can ensure they've sent through/gathered all their queries in time?</p> <ul style="list-style-type: none">• How frequent would you like to communicate via video conference? <p>We encourage supervisors to hold regular video conference calls with their student(s) to maintain a successful and efficient relationship, but you may only be able to commit to once a week or once a fortnight, for example, so it's good for the student(s) to be aware of this.</p> <ul style="list-style-type: none">• How would you like to handle the constructive feedback towards their report and poster? <p>Will you only want to see one final draft? Or will you be happy reviewing each section at a time as it is written? Will you be happy to feedback just once or a couple of times?</p> 
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Safeguarding

Students will be guided to manage their interactions with you to avoid overwhelming project supervisors with questions and correspondence (please see Appendix 2 for guidance around online supervision). Part of this can be achieved through your introductory slide set, in which you can set out your expectations for them when it comes to your interactions.

As most of the students are under 18 years of age, we have also developed a safeguarding policy (to be 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 Nuffield Research Placements programme, by virtually signing an agreement form (to be 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. 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 NRP 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 [our website](#).

The Regional Coordinators have been working since November 2020 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, project supervisors 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 three to four weeks (not necessarily full-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 project supervisors 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 project supervisors 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 project supervisors over the course of the projects.

Issue	Regional Coordinator	Project Supervisors
Student selection	Takes the lead and will work with project supervisors 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 project supervisors 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 project supervisors 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 Nuffield Research Placements programme and the role of the project supervisor.

If you have any further queries or concerns, please contact your Regional Coordinator via the details found on [our website](#).

Appendix 1: Guidance on providing a research question

The first substantive task for project supervisors 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 60 to 70 hours overall on all work and independent study during the summer. The estimated input and time for project supervisors 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 via the VLE, and whether you would like to

support students in other aspects of the programme. For example, some project supervisors have indicated that they would like to be involved in supporting students with the pre-placement study support package. This is entirely optional, but it may give you the opportunity to develop a rapport with your student(s) and to help you tailor the collaboration element to their skills and strengths.

As a project supervisor, 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, and particularly through these past months, 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 your NRP supervision (see below).

Supervising remotely: advice from the University of Glasgow

<p>Be realistic about what you can do <i>You don't have to pretend you're 'on call': set clear limitations and communicate them to the student(s)</i></p> 	<p>Be realistic about what your student can do <i>Assume your student is facing undisclosed difficulties & have realistic expectations</i></p> 
<p>Make sure your student(s) access essential Nuffield Research Placements info <i>You don't need to mediate: remind them to check the Virtual Learning Environment</i></p> 	<p>Establish your communications <i>Agree a frequency and technology that works for you both: manage expectations & demonstrate support</i></p> 
<p>Signpost support networks <i>Now and then check that your student(s) aren't feeling isolated: direct them towards their teachers, coordinator or peer group</i></p> 	<p>Help your student make the most of their time <i>Help them prioritise: signpost career development and training opportunities</i></p> 
<p>Reassure your student <i>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</i></p> 	<p>You don't need to know all the answers <i>Contact your Nuffield Research Placements' Regional Coordinator if you have any questions or concerns</i></p>



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