Nuffield Future Researchers
Guidance for Students

Introduction
The outbreak of the Coronavirus has meant that we have all had to adapt to new ways of going about our daily lives. Equally, we have had to radically re-shape the Nuffield Research Placement (NRP) programme that we originally intended to offer you over the summer of 2020.

We appreciate that you are facing a substantial period of self-directed virtual learning. Cognisant of this, we have re-oriented the placements programme to become a remote activity that will progress your skills while, crucially, continuing to be centred around access to, and collaboration with, a knowledge expert. While it will not be possible to undertake a physical onsite placement this summer, we have prepared a set of activities that will develop and test your essential professional, numeracy, data analysis, communication and research thinking skills. These are key outcomes that mirror those expected from any onsite placement activity and will, as usually expected from our students, result in a high-quality and credible research report and poster presentation. This is the new and exciting Nuffield Future Researchers (NFR) programme.

This model will still require a high degree of motivation and self-direction from you but we will be asking project supervisors to fulfil a subject-specific role in tutoring and guiding you through a structured and research-focused experience. This partnership with project supervisors may be a novel experience for many of you and we hope, therefore, also an exciting one.

The experience as a whole and the final outputs of a report and poster presentation will make a great contribution to your university applications and your CV. You may also want to have it accredited through the British Science Association CREST Award scheme; more information regarding that can be found here.

We and our network of National and Regional Coordinators are very much looking forward to supporting you to complete the Nuffield Future Researchers programme. This brief guide will set out what you should expect from the five modules, what we expect from you and what you can expect from your project supervisor.

The Nuffield Future Researchers programme
Overview
As a Nuffield Future Researcher, you will work very independently, a skill you have steadily been developing since schools and colleges closed earlier this Spring. However, you will also be working closely with a project supervisor, who will propose some research topics and questions for you to tackle with support from them. You will, of course, always be able to refer to your Regional or National Coordinator for guidance, too.

There are five modules to complete, each comprising core activities that must be undertaken as well as optional extension activities if you have the time and motivation to stretch yourself that little bit further. You will need to complete all core activities across the five modules to qualify for the final programme certification and, if you are eligible, for a bursary payment.
**Anticipated student programme activities and associated supervisor input**

You will complete five modules as part of the programme (see Annex 1 for more details on this). The first three will be student-led and completed via independent study within the Kahoot app and the Virtual Learning Environment (VLE). The idea is that these earlier modules will help you prepare for the research project element. They will look to test and develop your essential professional, analytical, data, communication, self-efficacy and research/critical thinking skills. Your project supervisor may wish to be involved at some level in these modules but it is not mandatory; so, this will depend on their availability and capacity, given their other home and work commitments.

The fourth module is the point at which there is the majority of input from, and collaboration with, a knowledge expert. We anticipate that this module will comprise activities set by the project supervisor within the VLE and will include tasks such as the detailed analysis of research papers and associated materials. This stage may also involve some data analysis; however, the premise is that the entire exercise can be tackled from your own home. You will, of course, be in contact with your project supervisor regarding this module (and, perhaps, any other expert colleagues that they believe it would be good for you to talk to). This is so that they can help to support and shape your thinking and ideas, sharpen the focus of your project, and establish a way to carry out the project in the available time. For this, you can virtually chat and video conference in the VLE.

The final module tests your ability to communicate your research findings. The written work is in the form of a report and a poster – we will provide you with guidance and templates for both. You can also ask for comments on these pieces of work from your project supervisor, as they will hold the more specialist and technical subject knowledge. They have been encouraged to provide constructive feedback on both, but we support any decisions from them regarding setting clear boundaries with what this feedback, and the processes around it, will look like – so, please take your cue from them. You will complete the programme by submitting your written work and completing your feedback survey.

We hope to showcase your achievements at a celebration event (or events) later in 2020. Moreover, we would encourage you to use your work not only as part of your university applications but also for submission to the British Science Association Crest Awards scheme. It may also be possible to include it as part of an Extended Project Qualification (EPQ) or the Welsh Baccalaureate Skills Challenge.

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**Remember!**

The core and extension activities you will complete are not tests; there is no right or wrong answer. They are designed to familiarise you with ideas and research project activities; for example, generating evidence, formulating questions, and managing and explaining data.

If at any point you are not sure what you are supposed to be doing, you can always talk to your coordinator about anything and your project supervisor regarding the fourth and fifth modules.

There will always be plenty of support on hand, so don’t be afraid to ask!

You can also find more information and Frequently Asked Questions (FAQs) on our website.
**Timeline and flow of activities**

We anticipate the following timeline for the Nuffield Future Researchers 2020 summer programme:

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<tr>
<th>Month</th>
<th>Activities</th>
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<tr>
<td>May</td>
<td>Students to begin and complete <em>Building Essential Professional Skills</em> module ahead of their virtual inductions</td>
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<td>June</td>
<td>• Regional Coordinators to hold virtual inductions with students</td>
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<td>• Students to access Project Supervisor introduction PowerPoint slide set</td>
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<td>• Following induction, students to begin <em>Developing Research Skills</em> and <em>Developing Data Analysis and Numerical Skills</em> modules via VLE</td>
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<td>• Following induction, student to supervisor interaction can begin via VLE</td>
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<td>July-August</td>
<td>Students to begin and complete ‘Investigating a research question in collaboration with a knowledge expert’ and ‘Communicating Your Research Evidence’ modules by ongoing collaboration with Project Supervisor</td>
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<td>September</td>
<td>Deadline of completed report and poster upload to the online system</td>
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The broad flow of activities for the 2020 Nuffield Future Researchers programme is illustrated below and followed by more information regarding the expectations, set out for both students and project supervisors.
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<th>Module</th>
<th>Student expectation</th>
<th>Project supervisor expectation</th>
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<td>Building essential professional skills</td>
<td>Work through initial core activities provided by the Regional Coordinator and completed via independent study within the Kahoot app (max one hour). Supplementary activities can be completed on the VLE, following your virtual student induction.</td>
<td>Following completion of the core activities by the student, Project Supervisor to provide their introductory slide set to the student through the VLE.</td>
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<td>Developing research skills</td>
<td>Work through core activities accessed and completed via the VLE, with further optional activities available if desired.</td>
<td>Optional engagement with students is possible here, facilitated by the Regional Coordinators. Input to involve advising and coaching student(s) as they tackle activities concerning research skills.</td>
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<td>Developing data analysis and numerical skills</td>
<td>Core data analysis activities to be accessed and completed on the VLE, with further optional activities available if desired. Numeracy activities include completion of the National Numeracy Challenge (<a href="http://www.nnchallenge.org.uk/nuffield">www.nnchallenge.org.uk/nuffield</a>). Resulting certificate to be uploaded to the VLE. Together with Developing Research Skills module, completion of activities should equate to approx. 10 to 15 hours.</td>
<td>Optional engagement with students is possible here, facilitated by the Regional Coordinators. Input to involve advising and coaching student(s) as they tackle activities concerning data analysis skills.</td>
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<tr>
<td>Investigating a research question in collaboration with a knowledge expert</td>
<td>Collaborating with your project supervisors to work up a research question that interests you and on which you can spend around two to four weeks exploring, through activities set within the VLE by your project supervisor. Together with Communicating Your Research Evidence module, completion of activities should equate to approx. 60 to 70 hours.</td>
<td>Coach and support student(s) as they shape their ideas and begin to explore evidence and research. Build on Developing Research Skills module by fostering the thinking skills and analytical questioning of their student or students. Provide them with a variety of concise activities through the VLE that allow them to investigate the area of research fully. This module may comprise a tapering approach to communication, with video and phone calls taking precedence in the initial stages and the balance shifting to the VLE chat function as the project progresses.</td>
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| Communicating your research evidence Parts I and II | Part I – Written report
Part II – Poster presentation
You will take the ideas (and questions!) that have come from your review of evidence and draft a research report and poster presentation.
You can ask your Regional Coordinator and project supervisors for constructive feedback on this before it is finalised.
Further guidance on both your report and poster can be provided by your Regional Coordinator. | Coach and support student(s) as they shape views on what the evidence is telling them.
Guide student(s) to write a synthesis of the evidence they have digested, in the form of a report and poster. Guidance given to the students on this can also be shared with the project supervisor so that the project supervisor is aware of what’s being asked of the student.
This module may be completed towards the latter stages of the tapered approach to communication, where the balance has shifted away from video and phone calls and towards communication through the VLE chat function. |
**Who can help?**

During the programme, you will be able to talk with your Coordinator about the overall process, expectations of the modules and any relevant programme queries you may have. Once you commence the “Investigating a research question in collaboration with a knowledge expert” module, you should also expect to be in regular contact with your project supervisor. They will be best placed to respond to any queries regarding the VLE activities they have set you and you should expect to periodically check in with them regarding progress and questions. In line with our Safeguarding policy (to be provided separately), all communications should take place on the VLE, whether in the chat function or on a video/teleconference call.

Lastly, if you get really stuck and can’t get hold of your coordinator or project supervisor, you will always be able to email nrp@nuffieldfoundation.org and we’ll help you as best we can. As in previous years, everyone involved in the programme will be looking to make it as successful as possible for you and will be working to support you in whatever way they can within their roles. As such, please don’t be afraid to ask for help; even though you’ll be studying independently at home, we are keen that you do not feel alone.

**How do I work from home?**

Working for long periods online can be physically and mentally demanding; you should, therefore, consider how to manage your time and environment to best maintain your health. Given that you are expected to spend up to 80 hours in total completing all of the activities between May and September, you need to ensure that you stay in good shape as you complete your project.

You can organise your time flexibly to fit around your other commitments. You should look to write out a rough summer plan of how many hours you want to spend working each day/week/month to help keep you on track. You can also discuss this with your project supervisor so that both of you are on the same page, as they may need to tell you about their own working hours and availability restrictions.

If you do not have access to a laptop or computer or if it is shared between multiple household members, please get in touch with your Regional Coordinator; we may be able to offer an alternative solution, but this would need to be discussed with them first.

### Tips for working virtually at home

- Try and set up your work area so that you are sat at a desk or table with a good amount of natural light
- Try to avoid sitting in direct sunlight, however, as this will cause glare on your screen and you may find you’re squinting a lot of the time, which can lead to headaches
- Try and maintain a good posture while you’re working; the best position is where your forearms are level with your desk or table, your hips are above your knees and your back is supported
- Think about your work – is anything that can be done away from your computer screen?
- Maybe if you’re trying to work out a problem, take some paper and a pen and head off elsewhere to tackle it by writing things down
- Take regular breaks
- To keep your eyes from hurting, you should look away from your screen and into the distance every 20 minutes to vary your range of focus
- Make sure you get up and move around every hour – perhaps you can build in a quick exercise routine that you can do for five minutes every hour.
### ANNEX 1

<table>
<thead>
<tr>
<th><strong>Module</strong></th>
<th><strong>What you will learn</strong></th>
<th><strong>How you will be given the activities</strong></th>
<th><strong>What you will need to do to complete the activities</strong></th>
<th><strong>Time to complete</strong></th>
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<tr>
<td><strong>Building essential professional skills</strong></td>
<td>Show that you know what is meant by the key essential skills</td>
<td>In collaboration with the Skills Builder Partnership, the Nuffield Foundation has developed four short online Kahoot activities to be completed during your independent study, before the final activity takes place during online inductions with your regional coordinator.</td>
<td>You will not be formally assessed in this module; however, Regional Coordinators will monitor your completion of the Kahoot activities. You will also be asked to submit a separate reflective piece on the essential skills required for your project.</td>
<td>1-2 hours</td>
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<td>Explain what essential skills will be required during your research experience.</td>
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<td><strong>Developing research skills</strong></td>
<td>Identify, evaluate and synthesise information from relevant subject-related sources</td>
<td>Activities and tasks addressing each learning outcome have been curated by the Nuffield Foundation and will be made available to you for your independent study on the VLE.</td>
<td>You will not be formally assessed in this module; however, Regional Coordinators will monitor your completion of the module activities. You will be asked to complete several core activities, with an opportunity to complete further optional activities if desired. As part of the core activities, you will need to submit a reflective piece on the research skills required for your project.</td>
<td>10 - 15 hours</td>
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<td>Use the internet effectively and critically as a research tool, e.g. to complete a literature review.</td>
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<td><strong>Developing data analysis and numerical skills</strong></td>
<td>Describe how data can be collected and managed. Give examples of how data can be analysed.</td>
<td>Activities and tasks addressing the data analysis learning outcomes have been curated by the Nuffield Foundation and will be made available to you for your independent study on the VLE. Numerical skills will be developed through completion of the National Numeracy Challenge.</td>
<td>You will not be formally assessed in this module; however, regional coordinators will monitor your completion of the module activities. You will be asked to complete several core activities, with an opportunity to complete further optional activities if desired. As part of the core activities, you will need to submit a reflective piece on the data analysis and numeracy skills required for your project.</td>
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| Investigating a research question in collaboration with a knowledge expert | 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 for investigating the research question and justify this choice  
Make good use of materials and sources available  
Select and use the research skills and applications (e.g. software packages etc) required to investigate, gather information, analyse and interpret data and findings as identified in earlier modules  
Employ essential skills. | Activities and tasks set and supported by your project supervisor (knowledge expert) in the VLE that you can complete in order to present a conclusion to a research question outlined by your supervisor.  
It is anticipated that the research question will be investigated either by analysing data or by a literature review and other proposals from your project supervisor. | You will need to keep in regular ongoing contact with your project supervisor in order to collaborate on the research question.  
Your communication with your project supervisor will be through video conferencing activities and through tasks uploaded by them to the VLE. You will be required to respond in a timely manner.  
To aid this process, you will complete a project plan (the template for which will be supplied by the Nuffield Foundation). | 60+ hours |
| Communicating your research evidence | Complete a written research report in the area of research against a given brief for submission to the Nuffield Foundation  
Complete a research poster in the area of research against a given brief for submission to the Nuffield Foundation  
List the different avenues where your research findings could be communicated. | You will complete a written report containing the following features: Abstract, Introduction, Methodology, Results and discussion, Conclusion, Evaluation, Appendix, References, Bibliography, Acknowledgements.  
You will also complete a poster presentation guided by a template supplied by the Nuffield Foundation. | You will need to complete a report and poster that has been reviewed by both your project supervisor for the relevant specialist subject and technical knowledge and by your regional coordinator, to ensure all required elements are present.  
You will need to upload your report and poster to the Nuffield Foundation's online application system.  
As part of achieving the core activities, you will need to submit a reflective piece on the skills gained during your project. |