

# BUILDING SCHOOL-UNIVERSITY PARTNERSHIPS

**SOUTHAMPTON EDUCATION SCHOOL**

Guide Book: A planning document for university and school staff



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**Written and Edited by:**  
Lindsay Wager and Dr. Jessica Spurrell

**With additional material by:**  
Prof. Marcus Grace, Tian Barratt,  
Jan Feeley, Jessica Taylor and  
Josette Crispin

# Introduction

## Public engagement with research

The last ten years have seen a series of attempts by policy makers to encourage universities to re-think and re-focus how they engage with wider society. Public engagement sits at the heart of these policy developments. Like Widening Participation (increasing access to Higher Education for the benefit of all), public engagement is driven by universities' social responsibility to the wider public. (Outreach is another common term often used to describe WP and PE activities, as well as recruitment.) **Public engagement is, by definition, a two-way process driven by a social responsibility, involving interaction and listening, with the goal of generating mutual benefit.**

In the 2010 Concordat developed by national research funding council RCUK (now UKRI), expectations were outlined for UK research organisations to have a strategic commitment to public engagement and outreach. It was also recognised that researchers should be recognised and valued for their involvement with these activities and enabled to participate through appropriate training, support and opportunities.

## School-University Partnerships (SUPs)

Working within a school-university partnership is one approach to public engagement and can deliver many mutual benefits to all institutions and individuals involved. These include:

- Increasing pupil performance
- Sharing of professional knowledge to improve pedagogy of activities and workshops
- Understanding of where research fits in with the curriculum and the modern world
- Access to the researchers of the future
- Collection of data for impact or to prove efficacy of a particular approach
- Training for school and university staff

The nature of such a partnership also means that these benefits can continue for successive groups of pupils, teachers and researchers.

The successful formation of a school-university partnership poses a unique set of challenges and in 2013 the RCUK-funded School-University Partnership Initiative (SUPi) project began to attempt to address these. Nationally, 12 universities or HEIs were funded to work with local schools to investigate how successful partnerships could be created and maintained, and each has found different ways to address the initial call to 'support researchers' direct engagement with pupils, bring contemporary and inspirational research contexts into formal and informal learning and enhance and enrich the curriculum'.

## Talk to US!

*Talk to US!* was the University of Southampton (UoS) SUPi project receiving funding from RCUK between January 2012 and December 2016. This Guide Book was developed as part of the *Talk to US!* Project and is based on the findings in the evaluation of its sub-projects.

*Talk to US!*, hosted by the Southampton Education School, focused on 6 STEM-based disciplines, some of which had existing engagement programmes that they wanted to enhance and some of which started from scratch, forming 6 sub-projects. The lessons learned are also very much applicable to non-STEM disciplines.

The 6 sub-projects were: *Biological Sciences*, *Chemistry*, *Discover Oceanography* at the UoS Waterfront Campus, *Dragonfly Day* engineering workshops for female pupils, *LifeLab* at Southampton General Hospital (SGH) and *Murder in the Medical School* run by the Biomedical Imaging Unit (BIU).

Researchers and university staff were paired up with teachers from local schools with an aim of producing workshops and supporting curriculum-based material that fitted into a particular model.

**'Now I know anyone can be a researcher no matter what age. If they just want to do something and they study hard, they're a researcher. So I could be a researcher if I put my mind to it.'**

**Pupil from local school**

# Introduction

## Talk to US! (continued)

This model was based loosely around the *LifeLab* programme and featured: introductory lessons around relevant subject material to be taught by teachers in school; a university visit day where pupils and teachers were able to use equipment or have experiences not available to them at school; following up with a project in school where pupils would produce academic style posters to be displayed at a celebration event at the end of the year.

In reality it very quickly emerged that this rigid approach did not fit every school or academic department involved for a variety of complex reasons and that flexibility and variety were more important. During the initial three years of the project it became clear that there was a very specific set of issues to overcome and knowledge needed to engage fully with this type of work. This document is an attempt to address some of those.

## How to use this document

This Guide Book is intended to both enable university staff to initiate partnerships working with local schools and to aid school staff in making contact with a university they wish to engage with. The partnership is based around the creation of an initial activity. Ideally this activity will be planned in response to discussions between school and university staff to identify any mutual needs that can be met by partnership working. The planning template at the front of the document (**page 3**) highlights all the necessary steps.

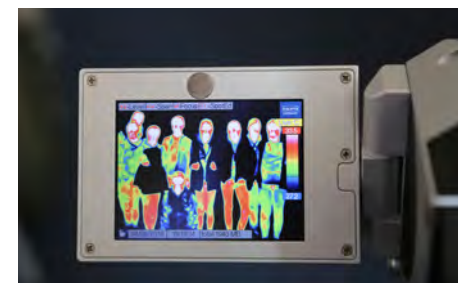
Each section of the template has a corresponding section of advice and information in the Guide Book. Those with experience of partnership working or currently working within a partnership will be able to fill out the template by using these sections in a relatively light touch way. Those who are new to partnership working may wish to read each section of advice in full before continuing.

We recommend giving a copy of the Guide Book to your school/university contact. The majority of sections are relevant to all, particularly when planning collaboratively. Some advice, however, is more relevant to those coming from either a school or a university perspective and these sections are highlighted in the margins, with **lime green/'S'** for schools and **mid green/'U'** for universities.

Please note, this document has been put together based on working with UK schools and universities. All terms are explained in the **Glossary** so you can adapt as relevant for your contexts. A digital version of this document can be found at [www.sotontalk2us.org.uk](http://www.sotontalk2us.org.uk)

## Other opportunities

There is already a lot of public engagement and outreach work going on at the University of Southampton and not only in STEM disciplines! If you wish to offer your expertise to an existing event or to find out what is happening that might be of interest to you, see the **Useful Links and Contacts** section.



Local Guides see themselves through an infrared camera in a workshop about climate change during *STEM Badge Day* (a project developed from *Dragonfly Day*).

**'They couldn't get over the fact that someone put this project on for them. They loved the fact that someone outside of our school was going to give them a day out, and link it to science and it was all different stuff that they'd never seen before. The fact that half the girls were scared of mud and ended up handling mud. It has more of an impact on those pupils because they don't go out very often.'**

**Teacher on *Discover Oceanography***

SCHOOL-UNIVERSITY PARTNERSHIP PLANNING TEMPLATE FOR: [EVENT/ACTIVITY NAME]			
1.1 Date	1.2 Schools involved	1.3 Researchers involved	1.4 Main contacts
2. What are priorities for those involved? Where do they align?			
3. Intended outcomes		4. What are we offering?	
5. National curriculum links			
6.1 Training for researchers		6.2 Training for teachers	
7. Safeguarding—general notes, training required, training attended?, DBS checks?			
8.1 Depth of engagement	8.2 Activity/activities type(s) and length(s)	8.3 Planning notes—timings, venue (e.g. room no.), risk assessment complete?	
8.4 Resources—requirements and sources			
9. Publicity—chosen methods, who will carry out, complete?			
10. Costs and sources of funding			
11. Evaluation—objectives, methods		12. Reflection—aims met?, learning points	



Engaging with Schools Training for UoS researchers, run by UoS Education and WVP staff with local school teachers.

# 1. General information

## 1.1 Date

The timing of activities within the academic year is vital. Busy or quiet periods in the university calendar do not necessarily coincide with those in schools. Holiday periods are also different (for details see **Glossary**). If you are already working within a partnership it will be much easier to agree a date that suits both parties. The planning tool on the next page may be helpful in identifying possible mutually convenient sections of the calendar.

If a target school has been identified check availability with them before planning for a particular date. If you want to work with more than one school it may be necessary to set a date and then publicise this to the schools you want to work with. With either approach it is worth considering the following.

Schools will generally need at least 6-10 weeks notice to complete the relevant paperwork, gain management and parental approval, collect permission slips and rearrange the timetable. Some schools agree their calendar a year in advance and teachers may find it difficult to get permission to take pupils out for an event that is not already in the calendar. However, they may have more flexibility in arranging for activities to be held at the school. See the **Activities and Structure** section for more information about the advantages and disadvantages of various types of activity and venue.

Different times of year are more appropriate depending on the year group you are working with. The impact this has on how willing schools are to engage at particular times of year will vary from school to school. However, exam season (April – June) is generally a busy time for schools and it may be difficult to work with any year group during this time. For further details of key stages (KS) and age groups see the **Glossary**.

Year 7	Settling in until Christmas.
Year 9	Starting GCSEs in some schools. In others there may be a gap between KS3 and KS4 which schools may welcome help filling.
Year 10	Studying for GCSEs. More time pressure from curriculum.
Year 11	Studying for GCSEs. Exams in the spring/ summer. Revision from Christmas onwards.

Unfortunately many universities do not have specifically designated facilities for working with schools. Pressure on available laboratory space or other facilities will be a factor as will the varying workloads of the PhD students and other academics involved. If you are unable to be flexible on dates or have a specific time period in mind make this clear from the start.



School pupils examine their electrophoresis gels at LifeLab.

# 1. General information

## 1.1 Date (continued)

The following tool, based on one designed by the University of East Anglia SUP! project, may be helpful in trying to identify mutually suitable blocks of time in the university or school timetable.

Below is an example of some of the pressure points in school and university timetables based on the experience of the *Talk to US!* project.

Month	September				October				November				December			
School																
University																
Month	January				February				March				April			
School																
University																
Month	May				June				July				August			
School																
University																

**High pressure** points are times when there can be little interaction between schools and universities, usually due to the lead-up and start to a new term, revision or assessment.

**Medium pressure points** are times when there can be some interaction but this will depend on teaching loads and administrative pressures. These periods are possibly more suited to discussions around the practicalities and content of activities rather than the activities themselves.

**Low pressure** points are good opportunities for interaction when teaching at the university slows or stops. These times are often the most appropriate for school pupils to visit the university due to greater availability of facilities.

**Institution Holidays** can be good times for strategic meetings depending on the availability of specific individuals. Understandably, however, some teachers and university staff will wish to protect this time and will therefore not be available.

**Appendix 2** includes a blank version of this table for you to fill out with your partner school or academic department to identify the low pressure points for your partnership.



# 1. General information

## 1.2 School recruitment

You may wish to consider:

- Which schools are appropriate or will most benefit from a particular activity will vary depending on the purpose (see the **Priorities and Perspectives** section) of your activity.
- Distance — will there be any travel issues.
- Age range and key stage (see the **National Curriculum Links** section, **Appendix 1** and **Glossary**).
- Ability, for example, Gifted and Talented (see **Glossary**).
- Do you have a Widening Participation remit?
- Are you working within a particular subject specialism?
- Do you have a target group of pupils you want to work with? (For example: pupil premium, boys, girls, SEN — see **Glossary**).

Remember (as mentioned in the **Date** section):

- Timing — there are times in the academic year that it is almost impossible to get pupils and teachers out of school, for example exam season. Equally there are times that work really well but these may differ from year to year.
- The school calendar — schools will generally need at least 6-10 weeks notice to bring pupils out of school to visit the university; many schools set their calendar a year in advance so it may be necessary to plan the timing of regular activities well in advance.



Pupils identify the plankton samples they have collected from Southampton Water.

‘I was surprised (at how well I did) as I’m not good at Science.’  
Pupil on **Chemistry**

# 1. General information

## 1.3 Researcher recruitment

You may wish to consider:

- How will you contact the researchers?
- Do you or your colleagues have any previous contacts? Can you ask supervisors or PIs to contact their students (postgraduate or undergraduate) on your behalf? Are there other departments or groups you can ask to put you in touch with researchers who may be interested? For example, Outreach, Student Ambassadors, those offering engagement training, graduate schools.
- Is a recruitment event appropriate? If so what will this look like and who are you targeting?
- How many researchers/academics are needed?
- What backgrounds or specialisms will they need?
- What academic level should they be?
- Do you have clearance or agreement from supervisors or other higher management? Is this necessary?
- How will you contact researchers?

Below are some of the questions you may be asked directly by the researchers you are trying to recruit. It would be useful to consider some of them in general when deciding which researchers to approach. If you have previously planned similar activities you will probably already have some colleagues in mind.

<b>Why me?</b>	<ul style="list-style-type: none"><li>• Relevant expertise, experience or enthusiasm</li></ul>
<b>What will I get out of it?</b>	<ul style="list-style-type: none"><li>• New skills, communication etc.</li><li>• Promotion prospects, CPD, CV</li><li>• Public awareness of your field</li><li>• Fun, job satisfaction</li><li>• Impact</li><li>• Department targets, required by some programmes</li><li>• Pay (?)</li></ul>
<b>What will it involve?</b>	<ul style="list-style-type: none"><li>• Time</li><li>• Input (see below)</li><li>• Travel</li><li>• Assessment</li><li>• Funding (?)</li></ul>
<b>What training will I need?</b> (See the <b>Training</b> section.)	<ul style="list-style-type: none"><li>• Activity specific (briefing)</li><li>• Generic (e.g. ‘Meet the Scientist’)</li><li>• DBS</li><li>• Mentoring from experienced colleagues</li><li>• National Curriculum (see the <b>National Curriculum Links</b> section)</li></ul>
<b>What input will I have?</b>	<ul style="list-style-type: none"><li>• Planning (is activity bespoke or pre-planned?)</li><li>• Delivery (leading sessions or tours)</li><li>• General supervision</li></ul>

# 1. General information

## 1.3 Researcher recruitment (continued)

Logistically it will probably be easier to leave the details of individual researcher recruitment to your main contact at the university. However, you may wish to be involved in deciding some of the details outlined in the tables on the previous page, such as which 'academic level' of researcher (see **Glossary**) you would like to work with or what specialism they should ideally have.

'Everyone should have a chance and it is valid to not want to go to university. Why should pupils be denied inspiring and interesting experiences that might encourage them to work harder at school just because they're not academic enough to come to university?'

Researcher from UoS Waterfront Campus at the NOC

School pupils make a video about 'Pupil Expectations' for UoS Engaging with Schools training for researchers.

# 1. General information

## 1.4 Making contact

It can be difficult to get a response from schools, especially if you are attempting to contact them for the first time. Below are a few tips.

- The personal approach – using a named contact always works better than using a general title like 'Head of Science'.
- Existing contacts – do you or any of your colleagues already know somebody at that school that could either be contacted directly or asked who would be the most appropriate contact? You could also try colleagues in your Faculty Outreach Team or the Education School if your immediate team doesn't have a contact. At the UoS you can look up the school on the **Activity Mapper** to see who they have already worked with in the UoS. If you do get contact information from a colleague, mention their name in your initial approach to make contact.
- Visiting in person or picking up the phone can be much more effective than an email.
- Find out where teachers might be, for example other events around the university, and go and meet them face to face.
- Different approaches work best with different schools. Persevere!

Making contact without the correct person within a large institution like a university can be difficult. Below are a few tips. For some contacts specific to the University of Southampton, see the **Useful Links and Contacts** section.

- Is there a schools section on the institution website?
- Is there a central Outreach, WP or Public Engagement team at the university? If so they will be able to discuss what they offer and help to put you in contact with the right person.
- Picking up the phone can often be more effective than email but make sure you have a direct number rather than the general switchboard.
- Do any colleagues have any contacts within the university that could point you in the right direction?
- If you know which subject area you are interested in working with, try contacting the relevant department directly.

'Ordinary people train to become doctors, nurses or researchers. Anyone can use a microscope.'

'I thought researchers only used computers and books. However, I have found out that they do a lot of practical work.'

Pupils from local schools

As part of the STEM Badge Day Celebration Event, Guides came to campus with their families and took part in engineering activities such as creating marble sorters out of spaghetti.

## 2. Priorities and perspectives

After forming a partnership, it is possible that schools and universities may have different priorities and end goals in mind for a project. A school may want to teach material for exams, whereas universities may prioritise increasing interest for higher education; how can we move past this? Below are two activities which all parties can use to lay out their priorities and goals for a project, allowing collaborators to find common ground and aims that they can share and work toward together.

### 2.1 Matching Priorities

All you need to start this conversation is flipchart paper (or a wall) and some sticky notes. Before meeting, each member should list their goals and priorities for the project. Upon meeting, individuals should write each goal on a sticky note, as well as their initials at the bottom, and then put it onto the flipchart. Following this, a member from each party should facilitate conversation around each of the priorities and work towards rearranging the sticky notes into clusters of similar goals. In cases where some individuals have many priorities and others bring just a few broad ones, ask everyone to limit the amount of suggestions they add to four or five.

By using this priority matching method, what the priorities of individuals are can become much clearer, whilst also recognising the shared goals between parties. This should help to highlight the key aims that everyone will be motivated and keen to work toward, thus encouraging more effective and cooperative work.

This material was based upon the Cultural Partnerships Toolkit produced by the South East Museum Development Programme and supported by Arts Council England.



### 2.2 Perspectives on Partnerships Tool

The Perspectives on Partnerships Tool was created by the NCCPE in collaboration with SUPI projects to help plan and develop effective partnerships by identifying what they look like at different stages of development from different perspectives. It can be accessed from the link below or by emailing [nccpe.enquiries@uwe.ac.uk](mailto:nccpe.enquiries@uwe.ac.uk).

For other resources developed through the SUPI programme, visit: [www.publicengagement.ac.uk/nccpe-projects-and-services/completed-projects/school-university-partnerships-initiative](http://www.publicengagement.ac.uk/nccpe-projects-and-services/completed-projects/school-university-partnerships-initiative).



## 2. Priorities and perspectives

### 2.3 Effort vs Impact Matrix

When collaborating to achieve a goal (such as increasing interest in a subject or giving students some foundation in something totally new), it is not surprising that you and your partners may have a range of ideas that you could use! Sadly, often time and money restraints mean that you cannot do everything you think of, so you need to assess the options and decide on the best project possible. There is little point in putting in lots of effort for few results, and ideally you want to create the most impact without overexerting yourselves. This is when it is important to plot your ideas onto two key dimensions: effort and impact.

	Little Effort	Big Effort
Little Impact		
Big Impact		

Initially, draw the above grid out on some flipchart paper, and then use sticky notes to jot down all the potential ideas for your project. Having noted these down, discuss in depth with your partners the impact and effort each idea will take, placing them accordingly on the grid. Don't feel you need to rush this, as an extra few minutes choosing wisely early on can save a lot of time and money later! Once each sticky note has been placed, you can write 'Quick Wins' in the box with little effort and big impact, 'Must Haves' in the big effort and impact box, 'Low Hanging Fruit' in the little effort and impact box, and 'Dead Horse' in the high effort but low impact box. It should now be instantly clear to avoid those projects in the 'Dead Horse' box, and other projects can then be decided on based on time and money available, feasible commitment levels, and your end goals.

Although seemingly not a complex task, this is great for highlighting clearly what project ideas won't take off, which are easy to do for some small gains, and what will be a lot of effort but can make a big impact on lots of people. **It may also highlight that some projects are more effort for some partners than others, and this is important to identify early on.** If this is your first meeting, think about taking a photograph of your finished grid to send out so people can think further on these ideas and what amount of effort they could commit to different projects.

This material was based upon the Cultural Partnerships Toolkit produced by the South East Museum Development Programme and supported by Arts Council England.

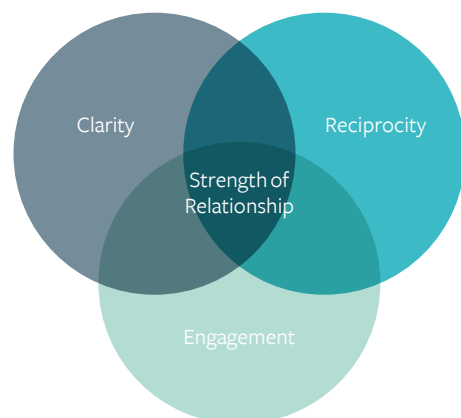


## 2. Priorities and perspectives

### 2.4 Sustaining Effective Partnerships

Once working together and creating (or finishing) a project, it is important the partnership remains effective. This helps to prevent the workload falling onto one party more than others, and ensures meaningful outcomes are sustainably achieved. The strongest and most successful partnerships are those in which all partners feel satisfied in the following three areas:

- **Clarity** – Everyone is clear about what they are trying to achieve, how they are doing so, and who has responsibility for each element.
- **Reciprocity** – Everyone has something to offer the project and something to gain from being involved – it is important that all expertise is acknowledged and the benefits to both individuals and organisations celebrated.
- **Engagement** – All partners need to take an active role in the project, feel that their voice is being heard, and it is relevant enough that it remains a priority for them.



**South East Museum**  
DEVELOPMENT PROGRAMME



The following activity offers a way to view a project from these areas, to help sustain strong and effective partnership working. Prior to the meeting, each attendee should be asked to think about why they participate in the project, what results they are achieving through it, and the challenges they are encountering in being involved or improving the project. When together the meeting should go through each key point individually, asking different parties their thoughts, and ultimately creating a broader picture of clarity, reciprocity, or engagement across the project.

If helpful, participants of the meeting could rate their satisfaction within each domain, thus providing a more objective measure of which areas need more work. Alternatively, using the table, participants could place stickers indicating their level of happiness in each domain.

	😊	😐	😞
Clarity			
Reciprocity			
Engagement			

This method is designed to facilitate discussion in existing partnerships and projects, especially when one or more parties seem to be becoming less involved or excited by the work. If one area is highlighted as lacking, such as clarity, then the meeting could be tied up by reminding everyone of key goals that everyone should work toward, thus improving clarity and making it clear what to work toward.

This material was based upon the Cultural Partnerships Toolkit produced by the South East Museum Development Programme and supported by Arts Council England.

## 2. Priorities and perspectives

### 2.5 Good Because... Even Better if...

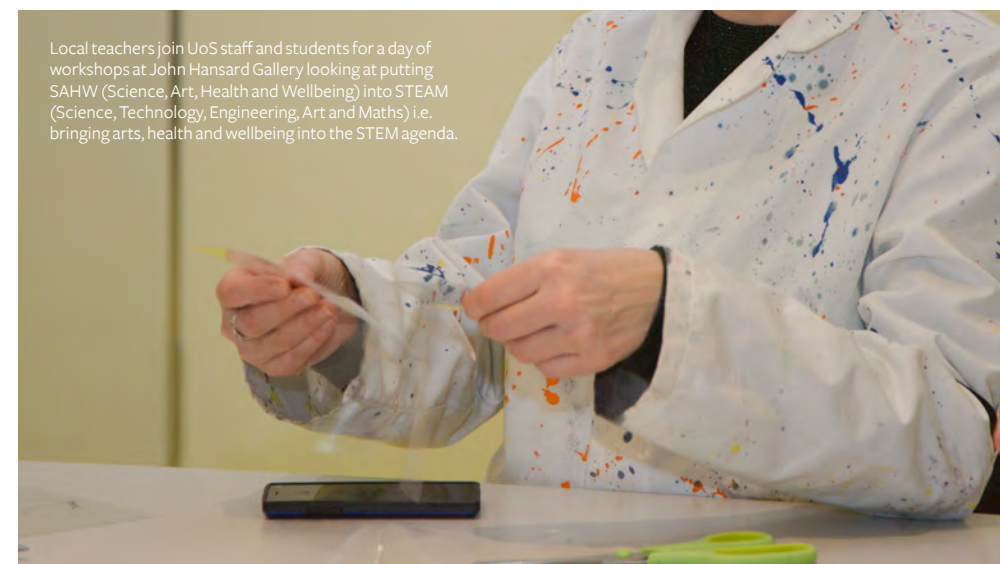
All the methods for creating and sustaining effective partnerships between parties involve meeting and discussing in some way, but how best to wrap up these meetings? If meetings feel stale, or as if there is still a lack of clarity on where to go next, this technique of 'Good Because... Even Better If...' can be used to address this. Before delving into the methods, it is important to note that meetings using this should aim to have a neutral facilitator to mediate, as this task can create a very clear but potentially emotional discussion.

At the end of a meeting, each person should receive two sticky notes of different colours (ideally green and red/yellow/amber). They then get the chance to write on their green sticky note that the meeting was 'Good because...', and on the other sticky note that it would be 'Even better if...'. Once completed, everyone should walk to a wall or flipchart and start by saying their sticky note that is positive and put it up.

Once all the positives are done, do the same for the notes focused on improvements. It may be that topics covered are directed at some people or areas more than others, or that they are hard to achieve, hence the importance of a neutral facilitator to keep conversations professional and productive.

Using sticky notes to highlight the strengths and areas of improvements for meetings (or indeed whole projects if you want to adapt this) can evoke some very honest admissions, but this is important. By giving people the room at the end of a meeting to highlight what they found beneficial and where they could see changes, this can allow for regular improvements to the structure, content, and results of meetings and projects. Maybe take photos of the flipcharts each time you do this to capture the change over time, and to highlight in future where you have acted on people's feedback to make meaningful change!

This material was based upon the Cultural Partnerships Toolkit produced by the South East Museum Development Programme and supported by Arts Council England.



Local teachers join UoS staff and students for a day of workshops at John Hansard Gallery looking at putting SAHW (Science, Art, Health and Wellbeing) into STEAM (Science, Technology, Engineering, Art and Maths) i.e. bringing arts, health and wellbeing into the STEM agenda.

# Spotlight:

## Collaborative planning — *Murder in the Medical School*

One of the key features of a successful partnership is collaborative planning. In order to attract schools and researchers and ensure that all concerned have a meaningful learning experience it is crucial that the needs of all those involved are met as much as possible. This may seem like an impossible task but it can be achieved by academics and teachers working together to plan the content to be offered.

One example of particularly successful collaborative planning is *Murder in the Medical School*, a forensics based workshop run by the Biomedical Imaging Unit (BIU) at Southampton General Hospital (SGH). Teachers from two schools were involved in the initial networking meeting where teachers and researchers met for the first time to discuss the structure and content of what could be offered. The key researcher from the BIU had many different ideas of how the unit could be utilised by schools and what in-school support could be offered. The teachers from both schools suggested that they would like to develop lessons that fitted in with lessons they already taught, based around a forensics activity where pupils used the equipment at the BIU to solve a murder. It was agreed that the key researcher would be responsible for planning the workshop with input from the teachers.

‘Everyone has different skills to draw on. You can help plan the subject material for an engagement activity without having to deliver the session yourself if you don’t feel comfortable doing it.’

**Chemistry researcher**



Pupils use high power light microscopes to view the ballistics evidence as part of *Murder in the Medical School*.

‘I would definitely recommend it to other people because we learnt loads of stuff. It’s not one of those trips where you just go and do lots of writing; it’s one that you can get involved with so it was really good.’

**Pupil from local school**

Although arranging face to face meetings was difficult, all parties kept in email contact and the key researcher kept the teachers involved in all the decisions he made, frequently asking them for their opinions and advice. The entire BIU team were also involved in the planning and resourcing of *Murder in the Medical School* and it was clear from what they produced that they had enjoyed the process.

Once the workshop had been delivered, the key researcher met with his colleagues to discuss what they felt worked and what hadn’t. He also met the teachers to discuss any changes that were needed. Focus groups were carried out with the pupils who had attended and the information was also used to inform any changes. After the workshop had been delivered several times to different schools the key researcher decided to have a unit open evening to publicise the workshop to more schools.

Approximately 60 invitations were sent to local schools and colleges and 8 teachers and school science technicians attended the evening. Initially the key researcher was disappointed by the relatively low turnout but the evening was a real success with the small numbers allowing for some really in-depth conversations between teachers and BIU staff. Several staff commented that they had gained or refreshed knowledge that they would now use in their teaching. Another unexpected need occurred which led to the key researcher visiting various schools during inset days or department meetings to share ideas with entire science departments about how they could get the best from their usually small and aging stock of light microscopes.

The key researcher also felt that further input from local schools would enhance what had already been produced and so the *Talk to US!* project manager put him in touch with a teacher from a third school. This teacher was completely new to *Murder in the Medical School* and was really enthusiastic about the material they were shown.



A meaningful learning experience requires the needs of all those involved to be met – achieved by academics and teachers planning activities together.

During their initial meeting the new teacher and the key researcher agreed that the teacher would plan a short scheme of work around the workshop and adapt some of the sessions from the workshop itself into introductory lessons at school so that pupils would have more time to spend on the practical work during their day at the unit. The teacher also re-worked the accompanying workbook to make it more ‘pupil-friendly’, just one way in which the project benefited from her knowledge, experience and expertise that would otherwise have been unavailable had the activities been developed without teacher input.

This process is ongoing but it shows that workshops and relationships can evolve over time. This ongoing process has produced a well-resourced and engaging workshop that meets the needs of pupils and teachers as well as providing valuable experiences for university staff. Due to collaborative working, all the staff at BIU now know how the workshop is run, making it far more sustainable and likely to persist even if key members of staff leave. Researchers and staff have learnt how to communicate their work to a new audience and there are now also several different points of contact between local schools and the BIU.

Through the ongoing teaching-researcher partnership this activity has been adapted to an in-school activity day which any school can run, called Hospital Heist. All resources for running the day can be found for free as part of our growing online resources library: [www.sotontalk2us.org.uk/resources](http://www.sotontalk2us.org.uk/resources)

In 2020 during the global pandemic, responding to teacher requests and reports on the digital divide, the activity day was adapted by UoS students into self-contained activity packs - 1500 packs were delivered to families in Southampton via schools and charities, supporting their continued engagement with Science.



### 3. Intended outcome

This may seem obvious but being clear about what you hope to achieve should inform all the decisions you make in relation to who you work with and what you plan. In general, the intended outcomes of school-university partnerships fall into one or more of the following categories (see **Glossary** for definitions): recruitment; Widening Participation (WP); public engagement with research (including Impact work); staff or student volunteering opportunities (including experiential learning and civic university work); and research (including action research) e.g. into educational interventions. For example, your aims may be to:

- Foster a general understanding of what universities do and why this is important.
- Enrich a particular area of the curriculum.
- Increase attainment of underachieving pupils.
- Offer unique experiences that pupils will not get at school.
- Share your enthusiasm for your subject.
- Inspire pupils in a particular group (e.g. girls, those from low income families) in a particular subject.

Within universities 'recruitment' into Higher Education is often cited as the intended outcome for engagement, but it is equally valid to plan engagement activities with a different purpose. Even if the intended outcome is recruitment this in itself is not sufficient to plan for successful partnerships or activities that will achieve this. It is important to think about which of the above you hope to achieve and how you will do so. Please note this is not an exhaustive list.



A fashion exhibition as part of the Teacher Zone at the UoS Science and Engineering Day of work created in the *Changing Minds Through Neuroscience* project.

### 4. What are we offering?

Schools are often inundated with offers of activities from a variety of sources. The time pressures of the curriculum and the school calendar can mean that it is hard for teachers to secure any time off timetable for their pupils. When they do, why should they choose to work with you? It is worth thinking about:

Does your activity follow and/or extend the curriculum? (See <b>National Curriculum Links</b> )	
Are there any gaps or areas in the curriculum that it is difficult for schools to cover due to lack of facilities or expertise? (See <b>National Curriculum Links</b> )	
Is your activity something that can't be accomplished without you? If a school is coming to the university is the activity something they can't do at school?	
Are you making full use of your unique expertise or facilities at your disposal?	
Are there any additional benefits such as certification for the pupils or publicity for the school?	
Can you offer the teacher training or support materials to increase their knowledge or inform their teaching?	
Can you cover the costs incurred by the schools taking part (e.g. travel and teaching cover)?	
Do you have procedures in place to minimise the time commitment needed from school staff? For example, standard letters for parents, someone to book coaches for them.	

It is very easy to focus on what the outcome is for pupils or how working with the university can benefit a school. However, schools also have a lot of expertise to offer the university. For example could you...

- Offer advice on the curriculum in a wider capacity than the activity you are working on?
- Lead training sessions for researchers on how to engage with your pupils?
- Offer work experience or lesson observation opportunities for students considering a career in teaching?
- Allow researchers access to your classrooms and pupils to carry out research from a variety of different departments, not just in conjunction with one particular activity or subject?
- Work with researchers to plan research or apply for funding?



Pupils get 'hands-on' with soil samples as part of *Dragonfly Day* - Engineering workshops for Year 9 girls.

## 5. National curriculum links

There is a very strict curriculum of study that applies to all state primary and secondary schools in England, Wales and Northern Ireland. In Scotland, however, there is no National Curriculum that has to be adhered to but a set of guidelines known as the 'Curriculum of Excellence'. See **Appendix 1** for more information about each of the curricula and guidelines and examples of subjects covered.

### FOR YOUR SCHOOL-UNIVERSITY PARTNERSHIP, HAVE YOU IDENTIFIED...

The school subject/university specialisation you are working within?	
The direct section of the school curriculum that the subject matter of your activity relates to?	
Whether you can cover something that it is particularly difficult to cover in schools? (See <b>Appendix 1</b> )	
The key stage (see <b>Glossary</b> ) of the pupils who will be involved?	
Which examination board the pupils are working on (this will effect pupils working towards GCSEs, AS levels and A levels)?	
The ability of the pupils you will be working with?	
The previous learning of the pupils in the relevant subject area?	
The assessment criteria – how do you know pupils have learnt what you intended?	

It is not always the case but many schools will be more likely to take part if the activities undertaken are curriculum related. This is especially true if you are hoping to work together on a longer term basis than just a one-off workshop or visit, or if you would like to work with Key Stage 4 and 5 pupils.

If you do have a definite area of the curriculum you would like to cover you may need to be prepared to offer advice as the academic disciplines studied at universities do not always fit exactly with the way the curriculum subjects are structured within schools. However, the rewards for this can be huge and can be used with your classes year on year.



'I wish I had a me when I was younger at school, to show me all these good things and give me all these experiences.'

**Chemistry researcher**

Local Guide groups use Infrared cameras as part of an activity for *STEM Badge Day* run by STEM women researchers.

## 6. Training

### 6.1 Training for researchers

Ideally, all researchers working with the schools involved in your engagement activity will have received some training, even if this is a brief session focusing specifically on the individual session they will be involved in. Some points to consider:

#### 1. What training is needed?

- Communication – presenting, questioning etc.
- Knowing your audience, assessing knowledge (National Curriculum)
- Health and safety
- Evaluating
- Session specifically tailored to your particular activity
- Relevant internal procedures and software such as risk assessments, room bookings, EVOLVE, Agresso, invoicing etc.

#### 2. Who needs the training?

The training that is offered will depend on the experience and level of those involved. For example, an undergraduate will have different training needs to a senior academic.

#### 3. Is existing training available?

It is worth checking with the following to see if they offer the training you require:

- The HEI's professional development team
- Public engagement networks
- Doctoral college or graduate networks
- National bodies such as NCCPE
- Other societies or funders such as UKRI
- National ambassador schemes (see **Appendix 3**)

For contacts specific to the University of Southampton, see the **Useful Links and Contacts** section.

#### 4. Who will deliver training?

Teachers are the most experienced in the curriculum and therefore often the best placed to deliver National Curriculum training, whereas a researcher's Faculty or Department may offer specific equipment training. A third party may offer a range of more diverse training opportunities, for example, Equality and Diversity or Health and Safety training (such as that offered by the MSLC).

#### 5. Is there funding available for training?

The suggested contacts listed under question 3 are a good place to start when looking for potential funding sources. It is also worth asking the researcher's head of group or, for postgraduate students, their Faculty graduate school, or doctoral researchers development team (in the UoS Doctoral College), as there may already be funding set aside for them for training and development. Furthermore, subject-specific societies and trusts such as the Royal Society of Chemistry or the Wellcome Trust often have funding calls for public engagement and outreach which can include researcher development and training. See also the **Costs and Funding** section.

#### 6. Can the academics involved gain accreditation for the training either internally or from external bodies?

Many national bodies such as the NCCPE, the Royal Society and the Wellcome Trust offer courses in Public Engagement, Community Engagement, Science/Research Communication etc. which look good on a researcher's CPD portfolio. Most universities now offer internal training in this area too, some of which may go towards a Masters or PG qualification, such as the Strathclyde Researcher Development Programme. Standalone Masters in Public or Community Engagement or Communication are now being offered by UK universities including Cambridge. Training may also count towards external schemes such as becoming a STEM Ambassador (see **Appendix 3**).



## 6. Training

### 6.2 Training for teachers

Can you provide the teachers involved in the partnership with training opportunities? These may include:

- Subject knowledge enhancement related to the workshops you are working on.
- Networking events to meet likeminded teachers or researchers with something to offer.
- Details of any lessons and resources involved in teaching pupils to enable teachers to follow up their involvement in the classroom.
- Research in the classroom e.g. techniques, procedures and development of ideas.
- Information on training they may be able to access from other areas of the university (for example the MSLC).

It may be that you have identified a training need or a particular area for development that you would like your partnership with the university to address. If this is the case discuss it with the university staff that you are working with to give them the best opportunity to help you or your colleagues achieve this. Equally there may be an area in which you feel able to offer training to researchers.

‘If you want your field to continue you need to find the researchers of the future. You also need everyone else to understand why your work is important.’

Engineering researcher



Engaging with Schools Training for UoS researchers, run by UoS Education and WP staff with local school teachers.

## 7. Safeguarding

One particular training need that may be identified is safeguarding.

**The University of Southampton Safeguarding Children and Vulnerable Adults Code of Practice states that:**

**‘It is important to plan the work of an organisation that has contact with children, young people and vulnerable adults in such a way as to minimise situations in which abuse may occur. Therefore at the University of Southampton all staff that have regular one-to-one contact with children, young people or vulnerable adults should adhere to the following code of conduct to ensure safety both for themselves and the young person.’**

In brief, it is the university policy that 1) no university member of staff or student should be alone with a group of children or vulnerable adults unless they have recent Enhanced DBS clearance and 2) it is advised that university staff and students should NEVER be alone with a single child or vulnerable adult, even if they have had recent DBS clearance.

The University of Southampton ‘code of conduct’ referred to can be viewed in full at: [www.southampton.ac.uk/hr/services/safeguarding-children/index.page](http://www.southampton.ac.uk/hr/services/safeguarding-children/index.page)



**Below is a user-friendly guide to Safeguarding put together by the LifeLab team.**

If a child or young person discloses to you that they have been or are being abused by someone or you suspect a child or young person is being abused or neglected:

- Record and date any facts which support your suspicions.
- Inform the Designated Senior Person (DSP) for child protection. If this occurs during interaction with school pupils then a member of school staff will need to be informed immediately.
- Allow the child or young person to speak without interruption, accepting what is said, but do not ask probing or leading questions. Do not attempt to investigate yourself.
- Alleviate feelings of guilt and isolation, without passing judgement.
- Advise the child or young person that you will try to offer support but must pass on the information.
- Continue to record any dates or facts as you know them.

If you receive an allegation about a member of staff or yourself:

- Inform your Designated Senior Person (DSP) for child protection immediately.
- Record and date the facts.
- Try to ensure no one is placed in a position which could cause further compromise.

**Please note:** It will not be necessary for every member of staff involved to obtain a DBS check as long as they will not be left alone with any pupils or vulnerable adults. However, some schools require any adult entering the school to have one and if working with children will be a regular part of your work you may want to arrange one (see the **Glossary** entry for DBS and section **8.5 Resources** for more information).

For more information, you can request a LifeLab pocket guide at [www.soton.ac.uk/lifelab](http://www.soton.ac.uk/lifelab)

## 7. Safeguarding

Some more safeguarding tips...

### YOU SHOULD:

- ✓ Treat everyone with respect.
- ✓ Provide an example for everyone to follow.
- ✓ Respect a young person's right to privacy.
- ✓ Recognise and allow for the needs of young people with learning difficulties and disabilities.
- ✓ Encourage young people and adults to point out attitudes or behaviour that they do not find acceptable.
- ✓ Avoid inappropriate physical contact.
- ✓ Remember that someone else may misinterpret your actions, no matter how well intended.
- ✓ Recognise that special caution is required in sensitive moments of counselling when dealing with bullying, bereavement or loss.
- ✓ Respect the cultural, religious and ethnic backgrounds of those that you work with.
- ✓ Remind anyone who comes to you that you will have to pass on any information they share with you.

### YOU SHOULD NOT:

- ✗ Permit abusive peer behaviour (e.g. bullying, racial harassment, rude or abusive language).
- ✗ Have any inappropriate physical, verbal or online contact with young people.
- ✗ Jump to conclusions about others without checking facts.
- ✗ Show favouritism to any individual.
- ✗ Be drawn into inappropriate attention seeking behaviour such as crushes or tantrums.
- ✗ Make suggestive remarks or gestures.
- ✗ Rely on your good name to protect you.
- ✗ Believe 'it could never happen to me'.
- ✗ Interview vulnerable or young people on your own.
- ✗ Promise to keep any information they share to yourself.

Pupils collect data digitally and empirically as part of their *LifeLab* visit day.





# Spotlight:

## Types of interaction - 'Meet the Researcher'

As part of the *Biological Sciences* workshop a 'Meet the Researcher' session was planned to enable pupils to discuss a few areas of research in more detail with researchers currently working in that field. This was based on the extremely successful section of the *LifeLab* day called 'Meet the Scientist'. The aim was for the sessions to be as informal as possible and so we arranged for the researchers to join the school pupils in the lounge area just after they had finished their lunch.

Around ten researchers volunteered, most of whom had helped the pupils complete the lab work they had carried out that morning. The pupils were split into groups of three and given ten minutes with three of the researchers, who were men and women of a variety of ages and nationalities who had taken different paths into research and were at different stages in their careers. Each researcher began by introducing their research and talking about the science involved and some of the techniques they used. Many of the researchers had brought a prop along with them or showed a short film to better illustrate their work.

During the planning stages, some of the researchers had stated that they were worried about how they would initiate a discussion with school pupils. They were unsure what the pupils would have already been taught in the relevant areas and therefore what level of scientific language they should use. Feedback from similar events had also identified problems with 'awkward silences'.



Pupils analyse their data in *LifeLab*.

'I know now that they (researchers) are working to improve our everyday lives.'

'Research is not boring and repetitive but is entertaining and productive.'

'Research is a long process, which takes a lot of dedication.'

'She made me inspired – I want to do that. If I do work hard, I can do that and it won't be so scary.'

### Pupils from local schools

At *LifeLab*, training is provided to the researchers who take part in the 'Meet the Scientist' sessions. This involves information on questioning techniques and the national curriculum led by teachers from local schools and the researchers are given guidance on how to put together an 'elevator pitch' so that their explanations of their work are succinct and well thought out. These sessions now run regularly and are hugely popular. A training session was arranged to support the researchers who would be involved in the *Biological Sciences* 'Meet the Researcher' session but many of the researchers were unable to attend.

Despite this, the event was a huge success and many pupils stated that this was the session they had enjoyed the most. One pupil in particular was inspired by a researcher who works on skin conditions such as eczema. The research had a personal connection due to the pupil's personal experience of skin conditions. The pupil commented that, "She made me inspired – I want to do that."

Most of the researchers involved in this session had been working with the pupils in the labs that morning and the day before. This had enabled the pupils to meet the researchers and work with them on a personal level before being asked to engage with the more academic side of their work. There were several researchers who had clearly built a good rapport with some of the pupils during this time in the lab and this meant that the conversation during the 'Meet the Researcher' session was more natural.



Informal interactions such as pupils chatting to researchers in small groups are often the most enjoyed by pupils. Give both researchers and pupils a chance to prepare – from training to time to think of questions.

We also asked the pupils to think about some generic questions that they might like to ask a researcher before the session started so that they were not put on the spot when asked if they had any questions. The pupils were also able to meet the researchers in small groups and so the interaction felt much more like a natural conversation than it would with larger groups of pupils.

On this occasion all these factors meant that the need for training was removed to some extent by the ease with which the interactions were able to occur. It is often not possible to assemble so many researchers at once, not just for the 'Meet the Researcher' session itself but for the preceding lab sessions as well. This activity was a one-off but if input from researchers is needed on a more regular basis, as with the 'Meet the Scientist' sessions at *LifeLab*, then training is definitely needed as researchers will not have had the chance to engage with the pupils before the session and will also be leading much larger groups. Training is also vital for recruitment purposes to ensure that this activity is sustainable.

## 8. Activities and structure

There are several possibilities in terms of types of activity you choose to fulfil your intended outcome. There are advantages and disadvantages to each and there may be a difference between what you would ideally like to do and what is logistically possible. Some projects may include multiple types of activity, e.g. an introduction/follow-up session at school followed/preceded by a university visit.

### Workshops at the university

Arguably, pupils visiting the university to take part in an activity has the most impact. It is an experience outside the everyday which allows teachers and school pupils to see what facilities are like at a university. Enabling school pupils to work with researchers in a university setting is often very powerful in terms of enabling them to understand what research really entails. It also helps them to view the researchers as human beings rather than being intrinsically different to their view of themselves. However, getting pupils and teachers to the university can be difficult to arrange due to the time pressures of the school curriculum and the incompatibilities of the school and university academic years. Due to these factors **it is important that activities that take place at the university make full use of facilities or equipment that are not available at school.**

### Workshops in schools

University staff visiting schools can remove the logistical difficulties of getting pupils and teachers out for the day. It may also mean that larger numbers of pupils can be reached through repeating the session with a number of classes or by leading assemblies. Mentoring activities where there is prolonged, in-depth engagement with the same pupils for a specific purpose may also work best if university staff visit the school. This is also true of any training that may be offered to teachers unless it relates to a particular piece of equipment or facility that can only be accessed at the university. Engaging pupils in their own environment may also be beneficial, especially at the beginning of a partnership, in avoiding feelings of intimidation. However, there is a danger that researchers will be viewed as 'just another teacher' if they cannot offer something different.

### 8.1 Depth of engagement

Not every activity will involve the same level of engagement. Often there is a trade-off between the depth of engagement possible and the numbers of pupils involved. Each level of engagement is valuable when used in the right context.

#### Minimal engagement

Pupils are observers of a demonstration, followers in a tour or the audience of a lecture. There is relatively little opportunity for them to actively take part, ask questions or learn anything through their own investigation. Good as an introduction or spark of inspiration.

#### Light touch engagement

Pupils take part in one-off planned practical workshops, record their opinions and learning or take part in discussion groups.

#### Active engagement

Pupils take part in proactive problem solving workshops, produce resources for other learners or complete follow-up content to support their learning in a particular session. Teachers and researchers are given more opportunities to implement training received.

#### In-depth engagement

Pupils, teachers and researchers work together to co-develop research projects. These can focus on pupils as researchers in the classroom, and enable teachers to carry out research into their own practice or contribute to researchers' academic output.

**'If it's pitched at the wrong level it goes beyond them (the pupils). Mostly they'll still be polite and appreciative but it will be a waste of time. They will all switch off and then you've lost them. It has to be appropriately pitched which I know is difficult.'**

**Science teacher from local school**

## 8. Activities and structure

### 8.2 Activity type

ACTIVITY TYPE	ADVANTAGES	TO CONSIDER...
<b>Tours</b>	Can be useful to set the scene or for showing particular processes such as samples processing in the hospital pathology lab. Can show off impressive equipment or settings that aren't often seen, and the scale of a university compared to a school.	Why are you doing a tour? Often they are used as time-fillers and provide relatively little educational value. Pupils will get a 'feel' for the university and your department on the way to your session.
<b>Lecture/presentation activities</b>	Relatively few resources needed. Can cover a range of topics from subject specific lectures (good way of giving a 'university experience') to talks on careers, GCSE options, HE information etc.	Possibly only suitable for higher ability pupils. Must be relevant and use a hook to spark interest or relate to everyday life. Lectures will have most impact in a lecture theatre so pupils can experience university life/an environment different to a classroom.
<b>Workshops led by researchers based on their own work</b>	Pupils interact with researchers on a personal level to dispel some of the stereotypes they have about academics. Creates meaningful experiences and makes academic research relevant to the pupils' lives. Researchers learn how to communicate their research to different audiences and potentially spark interest in their particular field.	Researchers will need to plan a workshop based on their own work. They may need training to ensure this relates to the curriculum and enable them to deliver the session in a confident and appropriate manner.
<b>Pre- and post-visit lessons or other consolidation</b>	Further embeds researcher-led sessions/content from university visit days into the classroom. These can be teacher- or researcher-led. Once they are written they can be used with other schools.	For schools to make full use of these they must be directly related to the curriculum that schools would otherwise be teaching.
<b>Challenge/project type activities</b>	Pupils experience what it is like to be a researcher and as a result gain a better understanding of the research process. They also improve communication skills and understanding of the particular subject area. Working closely with researchers on this type of work can also help change pupil perceptions of who researchers are.	For schools to make use of these they must be directly related to the curriculum that schools would otherwise be teaching. These can also be used with science clubs.
<b>Pupils and teachers directly involved in research/data collection</b>	Pupils and teachers gain a better understanding of the research process and a sense of ownership. Researchers can keep in touch and involve schools in the final findings of their work.	This can be a complex and time-consuming process. However, if successful, it can deliver huge benefits for all involved.



## 8. Activities and structure

### 8.3 Activity timing

SESSION LENGTH	ADVANTAGES	TO CONSIDER...
<b>Short session</b>	Fits into a lesson/assembly slot or minimises the length of time pupils are out of school as well as pressure on facilities. Can be a very effective way of getting a particular message across in a concise way or to introduce a programme of activities. Planning for a short session can help consolidate thinking about what it is that needs to be achieved.	Some schools will be reluctant to complete paperwork required to bring pupils out for a short session.
<b>Whole day event</b>	Allows a programme that can cover a variety of related topics and include differing types of activity. Produces the feeling of a university experience. Enables the building of a scenario from low engagement introduction to in-depth research activity.	Do you really need a whole day? Is there a danger of dead time or time-filling activities? Intensive planning needed especially if accommodating large numbers from different schools or using researchers from different faculties. Schools may need to leave mid-afternoon so you will not have a whole working day.

### 8.4 Planning your activity

TO ANSWER	NOTES
<b>AREA: THE ACTIVITY</b>	
What will your activity be?	
What are your learning objectives?	
Are there opportunities for: <ul style="list-style-type: none"> <li>• Independent working?</li> <li>• Group work?</li> <li>• Practical work/writing?</li> <li>• Discussion?</li> <li>• Numeracy, literacy, ICT?</li> </ul>	
How will you structure the activity? <ul style="list-style-type: none"> <li>• Hook to spark pupil interest and link to discover existing knowledge.</li> <li>• Main activity. Does it include several of the above opportunities?</li> <li>• Plenary to wrap up session and assess what pupils have learnt.</li> </ul>	
What will the staff involved be doing?	

## 8. Activities and structure

### 8.4 Planning your activity (continued)

TO ANSWER	NOTES
<b>AREA: LOGISTICS</b>	
Student Numbers (see below)	
Staff Numbers	
Where will your activity be?	
How many sessions or activities?	
Transport	
Do you need a pre- or post-activity visit to the school?	
<b>AREA: OTHER THINGS TO CONSIDER</b>	
Could you add value to existing initiatives rather than planning from scratch?	

### Numbers

Different activities or facilities make it possible to accommodate different numbers of pupils. It is worth bearing in mind that school classes are usually 30 or lower. For timetabling and other logistical reasons some schools will prefer to bring whole classes to an activity. However, if this number of participants will impact upon the quality of their experience it may be worth considering other options. For instance, running the activity two days running for 15 pupils each day or splitting the class and running two concurrent activities could be more beneficial for students. For larger scale events (on-campus) targeting specific pupils e.g. Pupil Premium or particular subject interests, you could invite multiple schools and allocate e.g. 10 places per school.



School pupils examine the evidence during *Murder in the Medical School*, a work-shop run by the Biomedical Imaging Unit.

## 8. Activities and structure

### 8.5 Resources

You may wish to consider:

- What rooms or labs will you need?
- Will you need space to store belongings or a space for lunch?
- What consumables you will need to complete the activities?
- What equipment will you need?
- What stationary will you need?
- What teaching materials will you use? Worksheets, electronic presentation, smart board, film clips etc.
- Do you need to discuss with a technician? Can they help you set up?

### Essential Documents

- Standard letters
- Information pack – joining instructions, meeting points, travel arrangements, contact list
- Risk Assessments – you will need one for each activity you complete. Most institutions will have a template system and generic ones will exist for moving a group of pupils around campus. You will need to share these with everyone involved, both in the university and the school. See **Appendix 4**.
- DBS – Disclosure and Barring Service (Advanced Disclosure) replaced the old CRB check and will be required by any university staff who will be working with pupils while unsupervised by teachers or other school/university staff with DBS. You can find information on how to apply at: [www.gov.uk/government/organisations/disclosure-and-barring-service](http://www.gov.uk/government/organisations/disclosure-and-barring-service)



‘The evolution activity was a real success, the pupils were fascinated by it. They felt really trusted that they were able to handle real skulls that were usually kept in locked cabinets.’

**Teacher on Biological Sciences**

Pupils get ‘hands-on’ with soil samples as part of *Dragonfly Day* – Engineering workshops for Year 9 girls.

## 9. Publicity

Whether internal or external to your organisation, as a way of recruiting schools or researchers - or to promote your activity within your organisation, publicity can be invaluable. However, it can be an extra cost so it is worth thinking carefully about what you want to achieve. Make the most of your institution's internal expertise on these including design, print and communications departments.

METHOD	ADVANTAGES	TO CONSIDER...
<b>Flyers and posters</b>	Allows you to focus on a particular area or event you wish to publicise. Can be distributed widely by post or email and displayed in strategic places.	Some time commitment and small cost implications. Large scale mailing may also be time consuming.
<b>Emails</b>	Small time and cost implications. Can be targeted to specific individuals/organisations. Electronic flyers can be used to make them more eye catching. Can reach a large number of people, especially if you co-ordinate with staff who have existing email lists such as ITE and WP teams in universities and heads of department or network representatives in schools.	Relatively low success rate unless very specifically targeted or intended for raising general awareness rather than actual participation.
<b>Web content</b>	Good for internal publicity. Flexible in terms of content. If done well can add to ‘buzz’ around a project or event.	Out of date quickly. Time consuming to keep up to date. Can be difficult to arrange depending on institutional restrictions. Must be easy to find.
<b>Newsletters</b>	Raises general awareness of your partnership or other engagement work and inspires others to take part. Can ask different people to contribute including pupils and teachers. Look out for existing newsletters you can add something to rather than creating new ones.	Time commitment to produce regularly. Cost implications particularly if printing physical copies.
<b>Case studies</b>	Raise general awareness of your partnership or other engagement work and inspire others to take part. Can be used in different ways once produced – newsletters, web content etc.	Can be politics involved if expressing something from a particular point of view if aim is to produce a realistic representation of issues rather than just celebrate something you have been involved with.
<b>Social media</b>	Up to date information to make people feel more involved. If done well can add to ‘buzz’ around a project or event.	Time commitment to keep updated regularly. Relies on there being enough happening to keep it looking interesting.
<b>Celebration events or showcases</b>	Create a very positive atmosphere and provide concrete examples of why people should get involved. Increase profile by inviting school management, parents, senior academics etc.	Time consuming to organise. Potential cost implications for catering, room hire etc.
<b>Networking</b>	Allows you to reach a large amount of people. Also helps you be more aware of what else is going on that may be relevant. Can be done at events and conferences you may be going to anyway. Face to face contacts and word of mouth are often the most successful method of getting your work noticed.	Returns are often not immediate. When organising networking events, it can cost lots of time and money.

## 10. Costs and funding

You will need to consider every aspect of your planned activity and any associated costs. Having sufficient funding to cover the costs incurred by schools as a result of participation in your activity, particularly travel and staff cover, is a further incentive for schools to take part. If you need to apply for specific funding to support your partnership or activity it is always worth talking to university Public Engagement and WP departments as they may be able to support this or point you towards funding you can apply for (for Southampton contacts see the **Useful Links and Contacts** section). Below are some typical items that incur costs to consider.

UNIVERSITY			SCHOOLS		
Item	Cost	Source	Item	Cost	Source
Time/Staffing			Time/Staffing		
Venue Hire			Cover		
Consumables			General Support		
Catering			Travel		
General support (student ambassadors etc.)			Other		
Travel					
Publicity					
Other (DBS etc.)					



‘Their (the pupils’) gels were very good... some were better than first year undergraduates.’  
Genetics researcher

Local teachers join UoS staff and students for a day of workshops at John Hansard Gallery looking at putting SAHW (Science, Art, Health and Wellbeing) into STEAM (Science, Technology, Engineering, Art and Maths) i.e. bringing arts, health and wellbeing into the STEM agenda.

## 11. Evaluation

There are several different ways to approach evaluating a partnership or specific activity. Not all of these will be applicable in every case. When considering what and how to evaluate it is important to be realistic about what can be achieved and be clear what you would like to measure. For example:

- Have the school pupils learnt what you wanted them too?
- Do pupils or teachers have a better understanding of what academic research is?
- Have you changed pupils’ perception of their own education in the relevant subject?
- Have you changed the number of pupils considering coming to university?
- Will teachers or researchers change their practice as a result of engaging with your activity?
- Have you inspired teachers to further their own academic careers or researchers’ direction of enquiry?
- Does the engagement work you have done deliver towards institutional requirements or charters? See the **Institutional Requirements and Charters** section.

**Ethics:** It is important to be aware that evaluation activities that include focus groups or questionnaires, particularly when pupils are involved, may require ethics approval. This could include the need for parental consent and the anonymity of participants.

METHOD	ADVANTAGES	TO CONSIDER...
AREA OF EVALUATION: Outcome for the pupils/quality of activities		
Show of hands, thumbs up/ thumbs down, bottle tops/ buttons in buckets labelled ‘good’, ‘okay’, ‘poor’	Quick and easy. If use a physical method (e.g. bottle tops) these can be counted and recorded.	Assesses enjoyment rather than learning outcomes. May not be honest unless is anonymous.
Verbal questioning as plenary to assess understanding of subject material	Quick and easy. Can be fun e.g. a quiz.	Difficult to record or gather data, unless using digital tools such as Socrative. Unlikely to represent whole group.
Focus groups	Decide focus in advance. Possible to gather more in-depth information, opinions and experiences.	Smaller numbers possible than questionnaires. Can be logistically difficult. Needs to be soon after engagement for pupils to recall things fully.
Questionnaires (see examples in Appendix 5)	Recordable and measurable responses. Allows focus on a particular area of interest.	Time for preparation and analysis needed. Questions need careful planning. Can be logistically difficult. Need pre- and post-intervention data to provide evidence of impact. Pupils may not put thought into answers.
Assessed work on return to school	Levelled responses. Allows focus on particular area of curriculum. May be attractive to some schools.	Preparation required and time to mark. Can be logistically difficult. Might not work for some schools if little spare lesson time.
Tracking e.g. progress at school or applications to university	Provides data based on fact rather than opinion. For university applications software already exists (HEAT).	Logistically very difficult. Not easy to prove a causal link.



## 11. Evaluation

METHOD	ADVANTAGES	DISADVANTAGES
<b>AREA OF EVALUATION:</b> Outcome for the teachers and researchers		
<b>Focus groups/ interviews</b>	Can set questions in advance. Possible to gather more in-depth information, opinions and experiences. Opportunities to follow lines of enquiry as they arise. Constructive feedback from professionals to improve activities/deliver what schools need.	Can be logistically difficult to arrange.
<b>Questionnaires</b>	Recordable and measurable responses. Allows focus on a particular area of interest.	Won't provide a large data set. Preparation required and time to analyse. Need pre- and post-involvement questionnaires to provide evidence of impact.
<b>Tracking e.g. career progression</b>	Provides long term impact data based on fact rather than opinion.	Logistically very difficult. Not easy to prove a causal link.
<b>Papers or research published</b>	Provides evidence of value which can be used to support individual careers and effect culture change in wider area of SUPs.	Must be well thought out from the beginning of an intervention if there is to be a valid research outcome directly relating to work done through the partnership.
<b>AREA OF EVALUATION:</b> University recruitment		
<b>Questionnaires</b>	Provides recordable data on opinions directly after engagement.	Opinion doesn't necessarily translate to actual attendance at university. Preparation required and time to analyse. Need pre- and post-involvement questionnaires to provide evidence of impact.
<b>Tracking e.g. progress at school or applications to university</b>	Provides data based on fact rather than opinion. For university applications software already exists (HEAT).	Logistically very difficult. Not easy to prove a causal link.

## 12. Reflection

Reflection is essential in creating successful, sustainable partnerships and meaningful engagement experiences. Teachers in particular will already be reflective practitioners but due to time constraints this is often overlooked. After each planning meeting/session delivered to pupils it is worth considering the following both in terms of the activity carried out and the partnership as a whole:

- Did you achieve what you set out to? How do you know? Refer back to your project aims (see the **Intended Outcomes** section).
- What worked well? What didn't work well? Why? If you used any of the activities from the **Perspectives and Priorities** section, refer back to the outputs. Consider repeating activities and looking at any differences in responses.
- How could things be improved for next time?



Pupils collect data digitally and empirically as part of their *LifeLab* visit day.

'I was worried I wouldn't understand but once we were doing the activities the scientific words made sense and I was surprised at how much I got by the end. They used long words but they explained what they meant. I was there to learn that stuff and them speaking to us like that made me feel like an adult.'

**Pupil from local school**



# Spotlight:

## Building sustainable engagement programmes — *Discover Oceanography*

One of the key issues arising from *Talk to US!* was finding ways that partnerships can be maintained when a key individual leaves either the university or a particular school. This can be a significant problem and is largely due to the fact that involvement in projects of this nature tends to be on a voluntary basis rather than a specific part of a job role. This also causes difficulties in communication between individuals who already have extremely busy workloads, which can make arranging face to face meetings or agreeing the content of a given activity very difficult.

*Discover Oceanography* has been running at the University of Southampton (UoS) Waterfront Campus based at the National Oceanography Centre (NOC) for several years. The programme involves going out on a research vessel with university staff to collect samples of plankton and other marine organisms as well as measuring the environment in which they live using secchi disks, temperature and salinity probes, and sediment grabs. This programme has been extremely successful in enabling pupils and teachers to gain a real insight into the research that happens at the UoS Waterfront Campus as well as providing a memorable learning experience relating to a local environment which cannot be replicated in the classroom.



Local school pupil examines a sample in *LifeLab*.

‘The benefits to mixed-ability pupils in terms of their motivation and self-esteem are clear. The first group that were involved over a year ago still talk about it now... they got to see science in a different light and thought being out on the oceanography boat was amazing.’

### Teacher from local school

One of the schools involved through the *Talk to US!* project put together a scheme of work for Year 8 pupils connecting their *Discover Oceanography* trip to the curriculum – which became our first ‘Online Educational Resource for Schools and Colleges’ to do so, the first of many!

In the first year of development there were some teething problems because the material covered on the boat trip did not entirely fit the content of the scheme of work that was written. However, in the second year, responsibility for coordinating and developing the *Discover Oceanography* programme was formally included within the role of a Senior Research Assistant, who had been involved with the programme from the beginning. This led to a shared vision and enabled the teacher involved in planning the scheme of work to thoroughly discuss the content of the lessons and boat trip with a member of academic staff who understood both the science behind what was being covered and the practicalities involved in taking school pupils out on the boat.

Originally, *Discover Oceanography* sessions simply included the sampling techniques on the boat, but through *Talk to US!* schools requested that visits last for a whole day in order to justify the work involved in organising bringing pupils out of school. Planning these extra sessions had been a bit ‘hit and miss’ in the past, but having an internal contact who was familiar with the rooms, sessions and expertise available proved invaluable.

Several different sessions including plankton identification, aquarium food web activities, a lecture on the nature of oceanography, and other practical activities were planned and offered to schools to create a tailor made visit for each school.



Institutional investment is key for programmes to survive changing staff and staff capacity – including activities in staff workload is ideal – as is hosting resources online.

Another advantage of expanding the visit day was that it enabled groups to be split between the boat and onshore activities, improving the pupil experience, which was evident in the pupil feedback collected as part of the *Talk to US!* project. This is a fantastic example of reflective practice, of embedding evaluation and reflection into the delivery process, and of the importance of partnership working in creating the most enjoyable and highest impact experience for everyone.

Such good practice is contagious – by connecting all the activities through the *Talk to US!* project, other teachers and researchers came forward to create similar suites of online resources. These in turn flourished once they found a permanent home – for the past few years they have been managed by paid UoS internship students, always overlapping so the current intern can support the next intern, and each bringing their own fantastic ideas. We now have a comprehensive platform and series of templates for online engagement which new projects can easily drop into.

The work of the internship students and the Senior Research Assistant show how valuable it is to have engagement work included in workload. If an individual leaves their position then their replacements will have a clear framework to continue this work and an incentive to do so. With the exception of *LifeLab*, and the coordination of *Dragonfly Day* which is managed by the university WP team, *Discover Oceanography* was the only project working with *Talk to US!* with dedicated staff and independent funding streams. However, if the desired culture change is achieved then it is more likely that appointments of this nature will be made in other departments – and, perhaps, eventually, in schools and colleges as well as universities.

# 13. Institutional Requirements and Charters

School-university partnership working can often count towards the various requirements, charters and other measures that both institutions have to align with. Showing clearly that the partnership work supports these is the best way to secure buy-in from senior management teams, enabling projects to take place.

## 13.1 REF Case Studies

### How to write successful impact studies for REF based on school/university partnership working

The REF is the UK's system for assessing the quality of research in UK higher education institutions (HEIs). It first took place in 2014. It is conducted approximately every 7 years and gives HEIs access to large amounts of funding, as well as prestige in the sector. For more information see [www.ref.ac.uk](http://www.ref.ac.uk) and the NCCPE website which has information on Public Engagement and the REF: [www.publicengagement.ac.uk](http://www.publicengagement.ac.uk)

An NCCPE analysis of 4 star REF14 impact case studies based on public engagement in general identified some key common factors. In all of these case studies the reasons behind the following were made apparent:

**WHY** was the engagement activity undertaken? What problem did it set out to resolve?

- **Dissemination** — Maximising the reach of the research into potential communities. Increasing awareness.
- **Engagement** — Creating meaningful and significant encounters with the research, tuned to the specific needs and interests of the user.
- **Involvement** — Using the insights and expertise of the user to inform outputs.

**WHO** did you work with and why? Name groups specifically and give reasons why they have been identified.

- **Publics** — General public, communities of place, communities of interest or experience etc.
- **Policy** — Policy makers, regulators, funders etc.
- **Practice** — Charities, business, public sector etc.

**HOW** did you engage with the groups you identified? Which model of public engagement was used?

- **'Classic'** — Working specifically to 'reach' a particular chosen group.
- **'Mediated'** — The focus is still on your chosen group but also involves some direct engagement with an intermediary organisation, for instance, to increase capacity or generate assets which can then be used by the chosen group in the longer term.
- **'Blended'** — Where engagement with the public is one thread in a more complex picture of engagement activity.
- **'Bolt-on'** — The primary focus is engaging with practitioners or policy makers but there is some public facing activity, usually to disseminate results or raise awareness.

**WHAT** impact was achieved?

- **Conceptual** — Communicating meaning or creating meaning, leading to impact on attitudes and values, knowledge and understanding, or leading to enjoyment, inspiration or creativity.
- **Instrumental** — Changes in policy, products or services to better reflect a public's needs or interests, achieve economic return, improve access to resources, and/or aid decision making. This is the easiest to evidence.
- **Capacity building** — Build on or gain new skills, improve health and wellbeing, change behaviours or professional practice, facilitate collaboration or progression.

## 13.2 Gatsby Career Benchmarks

The Gatsby Career Benchmarks are a framework of guidelines that define the best careers provision in schools and colleges, and they form a key part of the UK Government's Careers Strategy. Since 2018, statutory guidance to schools and colleges has included that they should be using the Gatsby Career Benchmarks to plan and improve their careers provision. The benchmarks are about ensuring that every young person has access to careers education, skills training, exposure to the full range of learning pathways and high quality, impartial careers advice and guidance.

Achieving the Gatsby Career Benchmarks in full is a challenge for schools and colleges, but school-university partnerships are particularly well positioned to help schools meet benchmarks 4 and 7, as described below. Aligning a project or activity to support these benchmarks will make it a far more attractive offer for UK schools and increase the chances of engagement and participation, as well as the impact of the project.

### Gatsby Career Benchmark 4 – Linking curriculum learning to careers

- Benchmark 4 is about linking curriculum learning with possible future career pathways. Through collaboration with universities, schools can provide information and experiences that teach students about a range of careers that are linked to subject or curriculum areas. For example, the *Murder in the Medical School* and *Discover Oceanography* activities highlighted in the **Spotlight** case studies allow students from schools to learn about a range of jobs within a field, both academic and non-academic, whilst also developing skills such as fingerprinting, water sampling, or analysing data.
- Where universities are looking to run more intensive programmes with schools or colleges, they should consider the GCSE/A-level/ equivalent curriculum topic areas in their planning. Providing subject-specific resources for teachers and school or college staff to use in their lessons, is another great way to support this benchmark area. For examples from Southampton, explore [www.sotontalk2us.org.uk/resources](http://www.sotontalk2us.org.uk/resources).

### Gatsby Career Benchmark 7 – Encounters with further and higher education

- Gatsby Career Benchmark 7 highlights the importance of encounters with further and higher education. Specifically, it requires schools to provide meaningful encounters with universities. It is important to recognise that whilst visits to universities can be a valuable experience, they can also be time and resource intensive for both schools or colleges and universities. This benchmark is about more than just university visits and so it provides opportunities for universities to support this benchmark in a variety of meaningful ways. For example, workshops, activities or talks that can be delivered in-school or live-streamed; student or ambassador-led programmes; attending careers fairs – are all great ways to add value to a school-university partnership.
- Opportunities to bring students on-campus may include subject taster sessions or masterclasses, Open Days, revision support - any opportunity that allows young people to experience a different style of learning and to be exposed to people, equipment and resources that they may not have access to in their school or college.
- Events for parents or guardians and teachers can also support this benchmark - if key influencers better understand higher education pathways then they can champion this in school/ college and at home.

Any activity, event or resource, if carefully planned, can support schools in achieving several of the Gatsby Career Benchmarks, not just the two referenced here. However, it is also important to think about the university's strategic aims in relation to student recruitment, access and progression, when building school-university partnerships. It is clear that partnerships between universities and schools are not only an effective means to ensure high quality and meaningful experiences for young people, but also can also have mutual benefits for schools, colleges and universities to achieve their strategic goals.



GATSBY



BENCHMARK	DESCRIPTION
<b>1. A stable careers programme</b>	Every school and college should have an embedded programme of career education and guidance that is known and understood by pupils, parents, teachers and employers.
<b>2. Learning from career and labour market information</b>	Every pupil, and their parents, should have access to good-quality information about future study options and labour market opportunities. They will need the support of an informed adviser to make best use of available information.
<b>3. Addressing the needs of each pupil</b>	Pupils have different career guidance needs at different stages. Opportunities for advice and support need to be tailored to the needs of each pupil. A school's careers programme should embed equality and diversity considerations throughout.
<b>4. Linking curriculum learning to careers</b>	All teachers should link curriculum learning with careers. For example, STEM subject teachers should highlight the relevance of STEM subjects for a wide range of future career paths.
<b>5. Encounters with employers and employees</b>	Every pupil should have multiple opportunities to learn from employers about work, employment and the skills that are valued in the workplace. This can be through a range of enrichment activities including visiting speakers, mentoring and enterprise schemes.
<b>6. Experiences of workplaces</b>	Every pupil should have first-hand experiences of the workplace through work visits, work shadowing and/or work experience to help their exploration of career opportunities, and expand their networks.
<b>7. Encounters with further and higher education</b>	All pupils should understand the full range of learning opportunities that are available to them. This includes both academic and vocational routes and learning in schools, colleges, universities and in the workplace.
<b>8. Personal guidance</b>	Every pupil should have opportunities for guidance interviews with a careers adviser, who could be internal (a member of school staff) or external, provided they are trained to an appropriate level. These should be available whenever significant study or career choices are being made. They should be expected for all pupils but should be timed to meet their individual needs.

Written with the support of the University of Portsmouth Outreach Team



### 13.3 Office for Students Key Performance Measures

English universities' widening participation targets are set locally but based on the national Office for Students' four Objectives, which are divided into 26 Key Performance Measures (KPMs). The Office for Students are the independent regulator of higher education in England.

Their overall aim is to, "ensure that every student, whatever their background, has a fulfilling experience of higher education that enriches their lives and careers." and their work, "covers all students whether undergraduate or postgraduate, national or international, young or mature, full-time or part-time, studying on a campus or by distance learning."

The four objectives are:



The 26 KPMs can be found at [www.officeforstudents.org.uk/about/measures-of-our-success](http://www.officeforstudents.org.uk/about/measures-of-our-success) where:

- **Participation** – KPMs 1-7
- **Experience** – KPMs 8-14
- **Outcomes** – KPMs 15-18
- **Value for money** – KPM 19
- **Efficiency and effectiveness** – KPMs 20-26

Each university's individual targets are detailed in their Access and Participation Plan and which can all be found here: [www.officeforstudents.org.uk/advice-and-guidance/the-register/search-for-access-and-participation-plans/#!/AccessPlans](http://www.officeforstudents.org.uk/advice-and-guidance/the-register/search-for-access-and-participation-plans/#!/AccessPlans)

## Top tips

1. Make it **relevant**.
2. Ask yourself **'Why?'** in relation to everything you do. If the answer is 'to fill time' you need to rethink it.
3. **Think outside the box** – don't just do what you've always done.
4. Be **flexible**. Be prepared for the coach to be late or different pupils to the ones you were expecting. Always have a Plan B.
5. Be **realistic**. Plan for what is achievable.
6. Be **patient**. For the majority of those involved, engagement is an additional responsibility and responses may not be immediate.
7. Always keep the **school and university** **calendars** in mind.
8. **Don't leave things to the last minute**.
9. **Stay positive**. Things may not always go to plan due to things outside of your control. This does not mean the partnership has failed.
10. Make sure there is a **shared agenda** available to everyone involved.
11. Ensure it is **sustainable** and that it can continue if a staff member leaves or is ill.

#### Top Tips: Making contact with schools

Universities work with hundreds of schools e.g. through their ITE, WP, Recruitment or Admissions teams. Strong relationships are built up and staff know each other well so try talking to them first! For Southampton, see **Useful Links and Contacts**.

#### Top Tips: Making contact with universities

As well as central university contacts (for Southampton see **Useful Links and Contacts**), many faculties, departments, and research groups have their own offer for schools, colleges and community groups – details should be on each group's website, often as a tab under e.g. 'Outreach'.

If you're not sure which subject area or group you want to engage with, searching online for the university name + one of 'outreach', 'widening participation', 'public engagement', or 'teachers' (e.g. 'Soton Outreach' for Southampton) will bring up links to the most active groups.



Local Guides and their leaders visit the UoS Anechoic Chamber as part of *STEM Badge Day* (a project developed from *Dragonfly Day*).



# Appendix 1

## The UK National Curriculum

**The National Curriculum overview (England, Northern Ireland and Wales):**  
[www.gov.uk/national-curriculum/overview](http://www.gov.uk/national-curriculum/overview)

**The National Curriculum details for England:**  
[www.gov.uk/government/collections/national-curriculum](http://www.gov.uk/government/collections/national-curriculum)

**Northern Ireland:**  
[www.ccea.org.uk/about/what-we-do/curriculum](http://www.ccea.org.uk/about/what-we-do/curriculum)

**Wales:**  
[www.gov.wales/curriculum-and-assessment](http://www.gov.wales/curriculum-and-assessment)

**Teaching guidelines for Scotland, the ‘Curriculum for Excellence’:**  
[www.gov.scot/policies/schools/school-curriculum/](http://www.gov.scot/policies/schools/school-curriculum/)

**Useful breakdown of the different systems for England, Northern Ireland, Scotland & Wales at primary level:**  
[www.theschoolrun.com/primary-education-England-Scotland-Wales-NI](http://www.theschoolrun.com/primary-education-England-Scotland-Wales-NI)

## Example Curriculum Links – KS3 & KS4 Science

Examples from the KS3 and KS4 Science Curriculum that either lend themselves well to linking with real and current research or are difficult to teach in school due to their abstract nature, complexity, lack of resources or large number of keywords. Note that this is by no means an exhaustive list and for other suitable topics see the links above and, of course, discuss with teachers!

- How scientific methods and theories develop over time, the importance of peer review and communication of results to a range of audiences
- Prefixes and powers of ten for orders of magnitude (e.g. tera, giga, mega, kilo, centi, milli, micro and nano)
- The nitrogen cycle
- Evolution
- Eukaryotic and prokaryotic cells
- The process of discovery and development of new medicines
- Classification
- The heart
- DNA replication & protein synthesis
- Mitosis & meiosis
- Ionic, covalent, and metallic bonding and intermolecular forces
- Bonding of carbon and resulting compounds: diamond, graphite, fullerenes, graphene
- Electrolysis of molten ionic liquids and aqueous ionic solutions
- The reactivity series: extraction and purification of metals
- Evidence for composition and evolution of the Earth’s atmosphere
- Electromagnetic waves: velocity in vacuum, energy transfer, wavelengths and frequencies from radio to gamma rays, velocities differing between media, absorption, reflection, refraction effects and uses in the radio, microwave, infra-red, visible, ultra-violet, X-ray and gamma ray regions, hazardous effects on bodily tissues
- The Earth’s magnetic field
- Radioactive nuclei: emission of alpha or beta particles, neutrons, or gamma rays, related to changes in the nuclear mass and/or charge, half-life, irradiation, contamination and hazardous effects, waste disposal, nuclear fission, nuclear fusion and the sun

# Appendix 2

## School-University Calendar Coordination Tool

Month	September				October			
School								
University								
Month	November				December			
School								
University								
Month	January				February			
School								
University								
Month	March				April			
School								
University								
Month	May				June			
School								
University								
Month	July				August			
School								
University								

Notes

Key

Hol/

●

Holiday

HP/

●

High Pressure Points

MP/

●

Medium Pressure Points

LP/

●

Low Pressure Points

# Appendix 3

## National Ambassador and Mentoring Schemes

### The STEM Ambassador Scheme

STEM Learning is a national organisation which creates links between employers (including universities) and educators. As part of this it manages the UK's network of over 30,000 STEM ambassadors.

Ambassadors volunteer with a huge range of activities from careers talks to mentoring school projects, delivering demonstration sessions to helping with mock job interviews, from providing technical advice to judging competitions and more.

**Ambassadors are recruited from those working in a wide range of STEM-based careers and professions** including environmental scientists, civil engineers, marine biologists, medical physicists, pharmacists, energy analysts, architects, apprentices, zoologists, set designers, climate change scientists, farmers, geologists, nuclear physicists, technicians, pharmacists and many more.

As well as induction sessions, a range of on- and off-line training sessions are available for ambassadors, including:

- **Mentoring Training**

Develop your mentoring skills with a one-day course, which can be delivered by your local STEM Ambassador Hub.

- **Powerful Practicals**

We know that the more interactive and hands-on you can make your activities, the more engaging they will be. The Powerful Practicals training looks at how you can turn your good ideas into a practical activity. The training is available either as a two-hour face-to-face training, or as an online toolkit.

**Teachers, schools and colleges** can request ambassador participation/offer volunteering opportunities for specific events and access free services, expert advice and support, for example with extra-curricular clubs.

**The network is managed regionally**, collating requests from schools and organising STEM clubs and other events, and disseminating these regular updates of volunteering and training opportunities to local ambassadors.

[www.stem.org.uk/stem-ambassadors](http://www.stem.org.uk/stem-ambassadors)

### See Also...

Other great schemes and initiatives for connecting university staff and students to school and college teachers and pupils, as mentors, activity leads or speakers:

**Brilliant Club** – [www.thebrilliantclub.org](http://www.thebrilliantclub.org)

**Into University** – [www.intouniversity.org](http://www.intouniversity.org)

**Uni Buddy/UCAS Chat** – [www.ucas.com/chat-to-students](http://www.ucas.com/chat-to-students)

**Speakezee** – [www.speakezee.org](http://www.speakezee.org)

### The Girls Network

Are you supportive? Open-minded? A good listener? Your time can help open up opportunities for a teenage girl and enable her to achieve her potential. Mentoring is a fantastic way to give back, develop new skills, and make a huge difference to a young girl's confidence by building her professional toolkit together.

The Girls' Network matches 14-19 year old girls with a mentor for a year, with the aim to develop skills and confidence, and to open up opportunities and experiences across sectors that the girls may otherwise not have access to. Our mission is to inspire and empower girls from the least advantaged communities by connecting them with a network of professional female role models.

What we ask from you:

- To attend a mentor training session
- To attend a 'matching event' where you are matched with your mentee
- To mentor for 10 x 1 hour sessions over the course of a year
- To attend a celebration event with your mentee at the end of the year

[www.thegirlsnetwork.org.uk](http://www.thegirlsnetwork.org.uk)



UoS researcher engages local Guides with the effects of different materials on heat transfer using infrared cameras, as part of STEM Badge Day.

# Appendix 4

## Risk Assessments

### Health & Safety Risk Assessment: A Basic Guide

Each organisation and department has its own risk assessment form and submission procedure — please contact your appropriate health and safety officer to find the details you need. However, the process of identifying risks and ensuring they are accounted for is the same. Use the steps below, the estimation matrix, and the example form detailing the most common hazards, to help you through the process.

- 1. Identify all hazards, hazard events, and reasonably foreseeable worst case consequences.** Each of these will form an item on your risk assessment form.

**‘Hazard’:** Something with the potential to cause harm i.e. injury or ill-health. **‘Hazard Event’:** The incident where the harm from the hazard occurs. **‘Hazard Consequence’:** The nature and extent of the harm caused. **‘Reasonably Foreseeable Worst Case’:** As ‘worst case’ is not necessarily the most likely consequence that should be considered, ‘reasonably foreseeable’ means that far-fetched, improbable hazards and consequences need not be considered.
- 2. Estimate inherent risk for each hazard.** In estimating risk, use the risk assessment matrix, then consider factors that could exacerbate risk, such as reasonably foreseeable emergencies, inexperience, lone work, new & expectant mothers, waste disposal, potential effects on others such as contractors or visitors, etc. These may be included in other items on the risk assessment form or be written as items themselves. **‘Risk’:** the likelihood of the hazard event and the reasonably foreseeable worst case consequence combined. **‘Inherent’** risk: that without any controls applied.
- 3. Devise controls for each hazard.** A **‘control’** is a measure taken to reduce risk. As a general principle, the **‘hierarchy’** of control that is to be applied (from most to least preferable) is: avoid the risk; substitute something less hazardous that gives the same or similar outcomes; **‘engineering controls’** i.e. equipment and articles that mitigate or contain a hazard; **‘safe system of work’** i.e. a prescribed work method; and **‘personal protective equipment’** (PPE) e.g. gloves, safety glasses, respirator, boots, etc.

Other controls that should be considered are: training, supervision, planning for reasonably foreseeable emergencies, health surveillance, validation and maintenance of any engineering controls, and correct specification of any PPE.
- 4. Estimate residual risk for each hazard.** **‘Residual’** risk is that with controls applied. Estimate as in point 2 above). The objective is for all residual risks to be low as far as is reasonably practicable.
- 5. The risk assessment must be read and signed** by the risk assessor (person completing the form), users (anyone carrying out the tasks) and the responsible manager/supervisor approving the form.

**Tips for Good Risk Assessments**

  - Risk assessments must be **‘suitable and sufficient’** i.e. cover all relevant issues and include enough detail. They can be generic, provided they remain **‘suitable and sufficient’**.
  - It is activities/tasks that should be risk assessed, and not: substances (but rather use of substances); equipment (but rather use of equipment); locations (but rather activities therein); people (but rather what they do).
  - Certain hazards require additional regulatory and technical detail (e.g. ionising radiations, biological agents, genetic modification, noise, hazardous chemicals, etc.).
  - Risk assessments need to be reviewed periodically (at least every two years or sooner if inherent risk is high) and also after incidents, after significant changes to the activity/task, if staff raise any concerns, if there is a relevant change to the law or to other relevant standards, or if there is anything to suggest the assessment is not suitable or sufficient.

# Appendix 4

## Risk Assessments

### Health & Safety Risk Estimation Matrix

- High risk:** Requires controls to reduce risk before activity/task can commence (or continue).
- Medium risk:** Requires controls to reduce risk as much and as soon as is reasonably practicable.
- Low risk:** All risk should be reduced to this tolerable level, so far as is reasonably practicable.

<b>Eliminate</b>	Remove the hazard wherever possible which negates the need for further controls. If this is not possible then explain why.
<b>Substitute</b>	Replace the hazard with one less hazardous. If not possible then explain why.
<b>Physical controls</b>	Examples: enclosure, fume cupboard, glove box. Likely to still require admin controls as well.
<b>Admin controls</b>	Examples: training, supervision, signage.
<b>Personal protection</b>	Examples: respirators, safety specs, gloves. Last resort as it only protects the individual.

LIKELIHOOD						
		1	2	3	4	5
LIKELIHOOD	5	5	10	15	20	25
	4	4	8	12	16	20
	3	3	6	9	12	15
	2	2	4	6	8	10
	1	1	2	3	4	5
		IMPACT: HEALTH & SAFETY				

IMPACT: HEALTH & SAFETY	
1	<b>Trivial – insignificant:</b> Very minor injuries e.g. slight bruising.
2	<b>Minor:</b> Injuries or illness e.g. small cuts or abrasions which require basic first aid treatment even if self-administered.
3	<b>Moderate:</b> Injuries or illness e.g. strain or sprain requiring first aid or medical support.
4	<b>Major:</b> Injuries or illness e.g. broken bone requiring medical support >24 hours and time off work >4 weeks.
5	<b>Severe – extremely significant:</b> Fatality or multiple serious injuries or illness requiring hospital admission or significant time off work.



# Appendix 4

## Risk Assessments

### Risk Assessment Form Template: Hazards

General Health and Safety Risk Assessment Template (Hazards likely to be encountered in a school pupil campus visit):

Hazards, hazard events, and reasonably foreseeable worst case consequences	Inherent risk (no controls) from matrix (mark with X)		Controls (measures to reduce risk)	Residual risk (with controls) from matrix (mark with X)	
Accident en route to university	High		<ul style="list-style-type: none"> <li>Transport booked through reputable coach company.</li> <li>If schools are making their own way to the university they are responsible for ensuring the health and safety of the group.</li> </ul>	High	
	Medium			Medium	
	Low	X		Low	X
Participant misses outbound transport	High		<ul style="list-style-type: none"> <li>School staff to check participants on and off buses.</li> <li>School staff to ring parents of any 'no shows' to check reason.</li> </ul>	High	
	Medium			Medium	
	Low	X		Low	X
Participant misses return transport	High		<ul style="list-style-type: none"> <li>School staff to check visitors back on buses.</li> <li>Any remaining participants will be the responsibility of university staff; if necessary a taxi can be ordered.</li> </ul>	High	
	Medium			Medium	
	Low	X		Low	X
Vandalism of coach company property	High		<ul style="list-style-type: none"> <li>Clear indication in joining instructions that pupils will be expected to pay for any damage caused.</li> <li>A copy of the university insurance policy has been circulated.</li> </ul>	High	
	Medium			Medium	
	Low	X		Low	X
Substance abuse or misconduct during journey and time spent at the university	High		<ul style="list-style-type: none"> <li>All participants to complete and sign the code of conduct; all incidents to be referred to Outreach Office; procedures in place to send a participant home if in breach of code of conduct.</li> <li>Teachers will be accompanying participants on the coaches.</li> </ul>	High	
	Medium			Medium	
	Low	X		Low	X
Fire/Emergency Procedure	High		<ul style="list-style-type: none"> <li>Visitors, student helpers e.g. ambassadors and staff will be briefed on emergency procedures including fire alarm at start of event.</li> <li>Emergency exits and fire assembly point identified at start of event.</li> <li>Register to be taken upon exit.</li> </ul>	High	
	Medium	X		Medium	
	Low			Low	X

# Appendix 4

## Risk Assessments

### Risk Assessment Form Template: Hazards (continued)

General Health and Safety Risk Assessment Template (Hazards likely to be encountered in a school pupil campus visit):

Hazards, hazard events, and reasonably foreseeable worst case consequences	Inherent risk (no controls) from matrix (mark with X)		Controls (measures to reduce risk)	Residual risk (with controls) from matrix (mark with X)	
Serious illness on part of participant	High		<ul style="list-style-type: none"> <li>Participants declare any known medical conditions/allergies on consent forms completed prior to the event taking place and university and school staff informed of these in advance.</li> <li>University and school staff made aware of how to seek medical assistance (designated first aiders, emergency numbers).</li> </ul>	High	
	Medium			Medium	
	Low	X		Low	X
Vandalism or damage to university property	High		<ul style="list-style-type: none"> <li>Clear statement in code of conduct and joining instructions that any damage must be paid for.</li> <li>University's standard procedures in terms of marking property etc.</li> <li>A copy of the university insurance policy has been circulated.</li> </ul>	High	
	Medium			Medium	
	Low	X		Low	X
Accident en route from one venue to another or participant goes missing en route	High		<ul style="list-style-type: none"> <li>Groups will be advised to use safest route and pedestrian crossings.</li> <li>Keep teams together, brief student helpers on emergency procedures.</li> <li>Pupils will be accompanied by university staff, student ambassadors and teaching staff.</li> </ul>	High	
	Medium			Medium	
	Low	X		Low	X
Incident associated with unauthorised access to restricted areas	High		<ul style="list-style-type: none"> <li>Warning about access to restricted areas to be included in programme and information on this to be included in briefing at the start of the event.</li> <li>Student ambassadors and participants to be made aware of fire procedures and nearest exit. Register to be taken at fire assembly point immediately on exit.</li> </ul>	High	
	Medium			Medium	
	Low	X		Low	X

**Note:** Some risk assessment procedures may require a 'Method Statement' to accompany the risk assessment form. This is generally a single A4 page briefly outlining the activity for which the risk assessment is being carried out.

# Appendix 5

## Example Pre- And Post-Event Pupil Questionnaires

Talk to US! pre-activity questionnaire: [Event/Activity Name] [Date]

School:	
Year Group:	
Name:	
Date of Birth:	
Your home postcode:	

1. How do you feel about learning Science in school?  
**I love it   I like it   I'm not sure   I don't like it   I hate it**
2. How confident are you at carrying out scientific investigations at school?  
Not at all confident   **1   2   3   4   5   6   7   8   9   10**   Very confident
3. How interested are you in studying Science subjects after you finish your GCSEs?  
**Very interested   Quite interested   Unsure   Not very interested   Not interested at all**
4. How interested are you in going to University after school?  
**Very interested   Quite interested   Unsure   Not very interested   Not interested at all**
- Please explain your answer:
5. Does anyone in your family have a degree?  
**YES   NO**
- If you have answered YES, please state who:

# Appendix 5

## Example Pre- And Post-Event Pupil Questionnaires

Talk to US! pre-activity pupil questionnaire: [Event/Activity Name] [Date]

6. Have you visited the University of Southampton with your school before?  
**YES   NO**
- If you have answered YES, please describe the activity:
7. What do you think the term 'research' means?
- 
8. Why do you think universities carry out research?
- 
9. Do you think the scientific research at the University of Southampton is directly relevant to your everyday life?  
**YES   NO**
- Please explain your answer:

Thank you for completing this questionnaire. We hope you enjoy the visit!

# Appendix 5

## Example Pre- And Post-Event Pupil Questionnaires

Talk to US! post-activity questionnaire: [Event/Activity Name] [Date]

School:	
Year Group:	
Name:	
Date of Birth:	
Your home postcode:	

1. Please rate the activity leaders for today's visit:

EXCELLENT   GOOD   UNDECIDED   AVERAGE   POOR

Please briefly explain your answer:

2. How do you think workshop leaders can improve their workshops for future classes?

3. Please state three new things you have learnt from today's activities:

1	
2	
3	

4. Do you have any questions about university or research that haven't been answered today?

If so, please write them here.

# Appendix 5

## Example Pre- And Post-Event Pupil Questionnaires

Talk to US! post-activity questionnaire: [Event/Activity Name] [Date]

5. What do you think the term 'research' means now?

6. Did anything from the visit today surprise you (this can be anything at all, not just about the workshops themselves)?

Please explain your answer:

7. Do you think the scientific research at the University of Southampton is directly relevant to your everyday life?

YES   NO

Please briefly explain your answer.

8. How do you feel about learning Science in school?

I love it   I like it   I'm not sure   I don't like it   I hate it

9. How confident are you at carrying out scientific investigations at school?

Not at all confident   1   2   3   4   5   6   7   8   9   10   Very confident

10. How interested are you in studying Science subjects after you finish your GCSEs?

Very interested   Quite interested   Unsure   Not very interested   Not interested at all

11. How interested are you in going to University after school (to study any subject)?

Very interested   Quite interested   Unsure   Not very interested   Not interested at all

Thank you for completing this questionnaire.



# Glossary

## Levels of academic qualifications

UNDERGRADUATE		POSTGRADUATE			
First degree (Bachelors or Masters)	Masters student	PhD, also referred to as Postgraduate Researcher (PGR)	Early Career Researcher (ECR)	Academic	Professor
	More research based than first degree	Specific area of research, gain title 'Dr.'	Working under more senior academic	Independent researcher	Overseeing specific areas of research

## National Curriculum Key Stages

Key Stage	EYFS (Early Years Foundation Stage)	KS1	KS2	KS3	KS4	KS5
Year Group	Reception	1 & 2	3-7	7-9 (in most schools)	10 & 11 (some schools start in year 9)	12 & 13
Age Range	4-5 years	5-7 years	7-11 years	11-14 years	14-16 years (13 if in year 9)	16-18 years
Other Info	Start of primary school (or infant if separate from juniors)		Start of juniors if separate to infants	Start of secondary school	GCSEs	AS/A levels

## General school term dates

Term	Autumn term	Autumn half-term	Spring term	Spring half-term	Summer	Summer half-term
Rough dates	1st week in September to week before Christmas	Usually mid October	1st full week of January to week before Easter	Usually late February	Week after Easter to 3rd week in June	Usually mid May

## General university term/semester dates

Term	Autumn term		Spring term		Summer
Rough dates	Last week in September to mid December		1st full week in January to late March		Late April to mid June
Semester	Semester 1			Semester 2	

# Glossary

**Action Research** — Research which aims to address the problem or challenge it is investigating through the research process; research carried out by practitioners (such as teachers) alongside and directly feeding into their practice.

**AHRC** — Arts and Humanities Research Council (UK).

**Anchor Institution** — A term often used to describe what truly engaged universities aim to be, described in many ways, including providing stability to the local area in times of crisis or change, and, more generally, ‘creating a benefit to the local community in addition to economic activity’. (See: [upp-foundation.org/civic-university-commission](http://upp-foundation.org/civic-university-commission))

**BBSRC** — Biotechnology and tt Research Council (UK).

**BIU** — Biomedical Imaging Unit.

**Civic University** — A Civic University, as described by the UPP Foundation Civic University Commission, is one whose role and focus ‘reflect the specific and long-term challenges of an area’, and which people feel a sense of ownership towards e.g. describing it as ‘our university’ rather than ‘the university’; it may also be known as an Anchor Institution. (See: [upp-foundation.org/civic-university-commission](http://upp-foundation.org/civic-university-commission))

**CPD** — Continuing Professional Development.

**DBS** — Disclosure and Barring Service, formerly known as ‘CRB checks’. Members of staff, researchers or students who will be left alone with school pupils must have a current Advanced Disclosure DBS Certificate. These can be applied for through an employer or in person. There may be a cost associated with this. When working with school groups it is usually possible to ensure that there is always a teacher or other member of school staff present with the pupils at all times. However, it may also be helpful for a few members of the university team running the activity to have DBS. More information can be found at: [www.gov.uk/government/organisations/disclosure-and-barring-service](http://www.gov.uk/government/organisations/disclosure-and-barring-service)

**DSP** — Designated Senior Person.

**EAL** — English as an Additional Language.

**Engagement** — ‘Public engagement describes the myriad of ways in which the activity and benefits of higher education and research can be shared with

the public. Engagement is by definition a two-way process, involving interaction and listening, with the goal of generating mutual benefit.’ (NCCPE).

**EPQ** — Extended Project Qualification. Optional qualification equivalent to half an A level, often of a research nature in the form of an individual or group project.

**EPSRC** — Engineering and Physical Sciences Research Council (UK).

**ESRC** — Economic and Social Research Council (UK).

**EVOLVE** — Education management software.

**Experiential Learning** — In this context, building projects supporting the community in which a university sits into the studies of the university’s students, often as standalone modules.

**FE** — Further Education e.g. at a college or 6th form.

**FSM** — Free school meals. Secondary pupils from low income families and those on certain benefits are eligible for free school meals (all primary aged children now get FSM). Often used as a target group for intervention.

**G & T** — Gifted and talented. Pupils who are performing at high levels of achievement in multiple subject areas or disciplines. They are also expected to display certain characteristics such as independence.

**HE** — Higher Education e.g. at a university.

**HEFCE** — Higher Education Funding Council for England.

**HEI** — Higher Education Institute e.g. a university.

**HEAT** — Higher Education Access Tracker database. Used by universities to track which pupils are applying for their courses including information on whether applicants have taken part in any WP activities during their school career.

**ICT** — Information and Communication Technology.

**Impact** — Within a university context, it will be assumed that discussions on ‘impact’ relate to the REF. In relation to the REF, ‘impact’ is defined as ‘an effect on, change or benefit to the economy, society, culture, public policy or services, health, the environment or quality of life, beyond academia’ (HEFCE et al 2012).

# Glossary

**ITE** — Initial Teacher Education.

**MFL** — Modern Foreign Languages.

**MOOC** — Massive Open Online Course.

**MRC** — Medical Research Council (UK).

**MSLC** — Mathematics and Science Learning Centre. Situated at the University of Southampton, the MSLC provides a range of professional development programmes and projects for teachers and support staff in schools and colleges across the South of England. This includes short courses, research projects and education and industry partnerships (see **Useful Links and Contacts**).

**NERC** — Natural Environment Research Council (UK).

**NCCPE** — National Co-ordinating Centre for Public Engagement. National centre hosted by the University of Bristol and the University of West England which helps universities and the public engage with each other by offering training, advice, tools and funding through its various projects.

**NOC** — National Oceanography Centre. NERC-owned national research centre which hosts one of the world's largest groups of scientists and engineers devoted to research, teaching and technology development in Ocean and Earth Science. Located at the University of Liverpool and the University of Southampton Waterfront Campus.

**Outreach** — A general term which has many different definitions depending on context. At Southampton our WP was previously called the 'Outreach' team so generally the term 'outreach' is used to refer to WP work.

**PERu** — Public Engagement with Research unit (UoS).

**Plenary** — A session (e.g. talk/workshop), usually at the beginning or end of a conference or series of talks/workshops/sessions which all participants attend, even if they attend separate talks/workshops/sessions etc. during the rest of the event; the end of a lesson or workshop which is used to draw together and possibly assess all the learning from that session.

**PPE** — Personal Protective Equipment.

**Pupil Premium** — Additional funding for publicly funded schools in England intended to raise the attainment of disadvantaged pupils. Funding is awarded for each pupil eligible for Free School Meals and those looked after by the local authority.

**REF** — The Research Excellence Framework (REF) is the system for assessing the quality of research in UK higher education institutions. The results of the 2014 REF were published on 18 December 2014 and can be viewed at: [www.ref.ac.uk](http://www.ref.ac.uk).

**SEN** — Special Educational Needs.

**SGH** — Southampton General Hospital.

**STEM** — Science, Technology, Engineering and Mathematics.

**STFC** — Science and Technology Facilities Council (UK).

**SUP** — School-University Partnership.

**SUPI** — School-University Partnership Initiative. UKRI-funded project co-ordinated by the NCCPE involving 12 SUPs across the UK. This Guide Book has been written and produced through the University of Southampton SUP project, *Talk to US!*.

**Teaching Alliance** — a group of schools lead by a lead school called a teaching school. Teaching schools are outstanding schools that work with others to provide high-quality training and development to new and experienced school staff.

**UKRI** — UK Research and Innovation (previously RCUK, Research Councils UK). Non-Departmental Government Body that manages the seven individual research councils that co-ordinate and fund research in the UK. The seven research councils are: AHRC, BBSRC, EPSRC, ESRC, MRC, NERC and STFC.

**UoS** — University of Southampton.

**WP** — Widening Participation. This is a national agenda which aims to offer opportunities and support to groups within the population who are under-represented in Higher Education due to a wide range of social and economic barriers.

# Useful links and contacts

## National contacts for training, funding, advice and more

**National Coordinating Centre for Public Engagement (NCCPE):**

[www.publicengagement.ac.uk](http://www.publicengagement.ac.uk)

**Wellcome Trust (regular large and small scale funding calls):**

[www.wellcome.ac.uk](http://www.wellcome.ac.uk)

**UKRI Public Engagement:**

[www.ukri.org/public-engagement](http://www.ukri.org/public-engagement)

**Searchable database of REF 2014 impact case studies (for help with grant writing, funding proposals and impact evaluation):**

[impact.ref.ac.uk/casestudies](http://impact.ref.ac.uk/casestudies)

**E.g. University of Southampton REF 2014 impact case study, 'Public engagement with deep ocean research':**

[impact.ref.ac.uk/casestudies/CaseStudy.aspx?Id=42992](http://impact.ref.ac.uk/casestudies/CaseStudy.aspx?Id=42992)

**Wellcome Trust report 'Factors Affecting Public Engagement By Researchers':**

[www.wellcome.ac.uk/PERSurvey](http://www.wellcome.ac.uk/PERSurvey)

## University of Southampton — Making Contact

**Southampton Education School ITE — In-school teacher training partnerships, Existing partnerships with schools:**

Phone (General Enquiries): 023 8059 3480 (internal extension 23480)

Primary: 023 8059 6231 | Secondary: 023 8059 2413 | FE: 023 8059 7269

Web: [www.southampton.ac.uk/education/postgraduate/itt.page](http://www.southampton.ac.uk/education/postgraduate/itt.page)

Email: [partnership@southampton.ac.uk](mailto:partnership@southampton.ac.uk)

**Schools and Colleges Liaison, WP & UK Recruitment Teams – Main activities offer for local schools and colleges, Existing partnerships with schools:**

Phone: 023 8059 4737 (internal extension 24737)

Web: [www.southampton.ac.uk/schools-colleges](http://www.southampton.ac.uk/schools-colleges)

Email — Pre 16: [outreach@southampton.ac.uk](mailto:outreach@southampton.ac.uk)

Email — Post 16: [liaison@southampton.ac.uk](mailto:liaison@southampton.ac.uk)

**Public Engagement with Research Unit (PERu):**

Phone: 023 8059 7009 (internal extension 27009)

Web: [www.southampton.ac.uk/per](http://www.southampton.ac.uk/per)

Email: [peru@soton.ac.uk](mailto:peru@soton.ac.uk)

**Student Ambassadors and Undergraduate Ambassador Scheme (UAS):**

Phone: 023 8059 9010 (internal extension 29010)

Web – Student Ambassadors: [www.southampton.ac.uk/studentambassadors](http://www.southampton.ac.uk/studentambassadors)

Web – UAS: [www.southampton.ac.uk/schools-colleges/undergraduate-ambassador-scheme.page](http://www.southampton.ac.uk/schools-colleges/undergraduate-ambassador-scheme.page)

Email: [ambassador@southampton.ac.uk](mailto:ambassador@southampton.ac.uk)

**School-University Partnership Officer – if in doubt, contact the SUPO!:**

Phone: 023 8059 7521 (ext. 27521)

Email: [supo@soton.ac.uk](mailto:supo@soton.ac.uk)

Web (what does the SUPO do?): [www.southampton.ac.uk/per/about/jess-spurrell.page](http://www.southampton.ac.uk/per/about/jess-spurrell.page)

**Ask the Expert – Request a UoS researcher talk or workshop for your school, college or community group!**

[www.southampton.ac.uk/schools-colleges/subject-specific-talks.page](http://www.southampton.ac.uk/schools-colleges/subject-specific-talks.page)

# Useful links and contacts

## Southampton — Training and Development

### **MSLC — STEM CPD for teachers & technicians in the South East:**

Phone: 023 8059 8810 (internal extension 28810)  
Web: [www.southampton.ac.uk/mslc](http://www.southampton.ac.uk/mslc)  
Email: [mslc@soton.ac.uk](mailto:mslc@soton.ac.uk)

### **CHEP — Academic professional development for all staff across the UoS:**

Phone: 023 8059 3471 (internal extension 23471)  
Web: [www.southampton.ac.uk/chep/index.page](http://www.southampton.ac.uk/chep/index.page)  
Email: [chep@soton.ac.uk](mailto:chep@soton.ac.uk)

### **Doctoral College — UoS doctoral training & researcher development:**

Phone: 023 8059 3253 (internal extension 23253)  
Web: [www.southampton.ac.uk/doctoral-college](http://www.southampton.ac.uk/doctoral-college)  
Email: [doctoral-college@southampton.ac.uk](mailto:doctoral-college@southampton.ac.uk)

### **PERu training opportunities – including *LifeLab*’s ‘Meet the Scientist’ training and ‘Engaging with Schools’, based on this Guide Book:**

Web: [www.southampton.ac.uk/per/support/training.page](http://www.southampton.ac.uk/per/support/training.page)  
Meet the Scientist: [www.southampton.ac.uk/per/support/training/meet-the-scientist.page](http://www.southampton.ac.uk/per/support/training/meet-the-scientist.page)  
Engaging with Schools: [www.southampton.ac.uk/per/support/training/schools-engagement.page](http://www.southampton.ac.uk/per/support/training/schools-engagement.page)

### **Winchester Science Centre — training for STEM Ambassadors and CPD for teachers:**

Web: [www.winchestersciencecentre.org](http://www.winchestersciencecentre.org)  
Email – STEM Ambassadors: [ambassadors@winchestersciencecentre.org](mailto:ambassadors@winchestersciencecentre.org)  
Email – School Enquiries: [education@winchestersciencecentre.org](mailto:education@winchestersciencecentre.org)

## More from the Southampton SUPs Online

### **Online Educational Resources – Developed by Southampton teachers and researchers, connecting research to the curriculum to engage learners of all ages:**

[www.sotontalk2us.org.uk/resources](http://www.sotontalk2us.org.uk/resources)

### **Digital Engagement – The PERu team’s favourite free digital engagement resources from Southampton and beyond!**

[www.southampton.ac.uk/per/Digital\\_Engagement/digital-engagement.page](http://www.southampton.ac.uk/per/Digital_Engagement/digital-engagement.page)

### **Online, interactive version of this Guide Book**

[www.sotontalk2us.org.uk](http://www.sotontalk2us.org.uk)

# Acknowledgements

The *Talk to US!* project has been a collaboration between many institutions and individuals. Both the lessons learned and passed on here via the Guide Book and the success of the projects involved could not have been achieved without the support, commitment, enthusiasm, ingenuity and hard work of all those involved.

We would therefore like to express our thanks to everyone that has been a part of this project.

## Schools

All Saints Church of England Academy  
Bitterne Park School  
Cantell School  
Chamberlayne College for the Arts  
Chichester Free School  
Crestwood Community School  
Eggar’s School  
Havant Academy  
Hounsdown School  
New Forest Academy  
Oasis Academy Mayfield  
Ormiston Shelfield Community Academy  
Park Community School  
Redbridge Community School  
SEEDS (Home Education Group)  
St. Anne’s Catholic School  
St. George Catholic College  
The Hamble School  
The Mountbatten School  
The Portsmouth Academy  
The Romsey School  
The Thomas Hardy School  
The Westgate School  
Thornden School  
Upper Shirley High School  
Wildern School  
Wyvern College

## University of Southampton

Biological Sciences Research Group  
Biomedical Imaging Unit at Southampton General Hospital (SGH)  
Chemistry Research Group  
The *Discover Oceanography* team and all at the UoS Waterfront Campus and the NOC  
Faculty of Engineering and the Environment outreach team and researchers  
The *LifeLab* team  
The MSLC team  
The UoS Public Engagement with Research Unit (PERu)  
Southampton Education School  
The UoS Widening Participation (WP) team

## UKRI and the NCCPE





## Find out more

[supo@soton.ac.uk](mailto:supo@soton.ac.uk)  
[sotontalk2us.org.uk](http://sotontalk2us.org.uk)

Developed by the University of Southampton *Talk to US!* project (an UKRI-funded SUP), hosted by the Southampton Education School, in collaboration with local secondary schools.