

Evaluation brief for Connect Physics

Project Aim

The aim of Connect Physics is to see a rise in Year 8 students considering physics as a pathway to their future.

Context

Connect Physics is a set of three workshops aimed at Year 8 students, in particular those with medium to high science capital.

The workshops have been developed by [Science Theatre](#) on behalf of SEPnet throughout early 2017. This included testing all three workshops in four schools in outer London in June / July 2017. This was part of a formative evaluation.

We now need to carry out a final round of testing that will occur this academic year (November 2017 to July 2018) across the South-East. Nine of the SEPnet Outreach partners will be delivering the workshops to at least three schools each, so a total of at least 27 schools across the region. The workshops have not been tested as a set of workshops.

The workshops have been developed using the learning from the [initial SPIRES results](#). The report shows that science capital is key is selection of STEM subjects throughout GCSE and A-Level. By delivering the workshops, each with a particular message, aim to maintain the science capital of our target students. For those with medium science capital, these workshops should encourage them to view STEM as a pathway to a potential career, for those with high science capital, they will be encouraged to think specifically about physics.

Information on Workshops

More details on the three workshops can be found [here](#). We are also happy to provide you with presenter guides for each of the workshops, along with some of the additional resources. Please e-mail the SEPnet [Director of Outreach](#) for access to these. We ask you don't share these as the project hasn't been formally launched yet.

The workshops will be delivered primarily by nine of the [SEPnet Outreach Officers](#). The Officers have not previously delivered these workshops, but have been trained by Science Theatre. The workshops have been designed to be flexible so it takes into account different presenter styles. In some cases the workshops may be delivered by experienced Undergraduate Ambassadors from our SEPnet partners. These Ambassadors will be trained by the Officers.

The three workshops are

- **Workshop One: What Connects to Physics?**

The aim of this workshop is to introduce students to the variety of topics that are part of the study of physics and encourage students to discover the links between these topics.

- **Workshop Two: What careers can a physics degree lead to?**

The most common answer is 'scientist'. The aim of this workshop is to show that scientist is just one option out of a multitude of interesting, satisfying possible careers.

- **Workshop Three: The scientific method.**

The aim of this workshop is to introduce students to the scientific method. Unlike many school practical's, the workshop is designed so that the students should not know the answer in advance or be able to solve the problem easily by guesswork.

As a set of workshops they will deliver the overall messages:

1. Anyone can do physics.
2. Physics is exciting, relevant & important; it goes beyond the classroom.
3. Studying physics further broadens career possibilities.

The majority of the workshops will be delivered one a term throughout the school year. Some officers may experiment with format and deliver them in a single afternoon towards the end of the school year.

Generally officers will try to fit as many Year 8 science classes into a single day to deliver each workshops. However sometimes this isn't possible, so not all of the Year 8 students in a school will see the workshops.

Project Objectives

- The workshops will be delivered to at least 27 schools across the South East of England.
- At least nine of these schools will be state-funded schools.
- After delivering all three workshops, the nine SEPnet Outreach Officers are comfortable delivering all three workshops.
- A standard training for UG Ambassadors will be developed based on experiences from across all the SEPnet partners.
- *Each workshops deliver its own message to the students.*
- *The set of workshops will delivering the overall messages.*
- *Science Capital of Year 8 class will, at least, remain the same before and after all three workshops have been delivered.*
- *More students are considering STEM and physics as pathways to their chosen careers.*

The final four objectives will change depending on indicators agreed upon between the SEPnet Director of Outreach and the evaluator.

The Evaluation

The Project Team is looking for an evaluator to join us throughout the year, helping us set our baselines through to producing recommendations for delivery in 2018/19. We are looking for an evaluator who will give a supportive, critical view and help evolve the project to reach its aim.

There will be three stages to the evaluation:

1. *Establishing Baseline. (November 2017)*
Develop metrics to be used when workshops are delivered. School visits to establish baseline. This could include: Interviews / Focus groups with physics / science teachers, current Year 8 students & Outreach Officers. Determine methodology for measuring metrics through data collection.
2. *Observations and Data Collection. (November 2017 to mid-July 2018)*
Observe and collect feedback throughout delivering of programme of activities. Observe at least six

of the officers delivering. Observe three complete sets of workshops.

3. *Summative Evaluation & Reflection. (mid-July 2018 to August 2018)*

Analyse collected data. Produce report. Give advice and frameworks for use in potential second year of project.

Evaluation Questions

- Do the workshops work as a set? Does one of them have more merit over others?
- Are the messages being delivered different across different types of students based on their type of school, science capital or location?
- How consistently are the workshops being delivered across the network? Does having different deliverers cause there to be differences in messages getting through?
- What's the best format for delivering the workshops? Is it best to keep them at once a term or do they have more impact being delivered differently?
- Are teachers happy with the content and delivery of the workshops?

Logistics

As this is being delivered across 27 schools, it is impossible to visit every workshop being delivered! The Outreach Officers have been informed they will be helping in the evaluation process through collection of data. The method for measuring metrics and establishing baselines would need to take this into account.

SEPnet is also happy to reduce the more extended evaluation (including baselines etc.) to a specific set of at least nine representative schools.

The schools will be made aware that an external evaluator will be working on the project and will have access to the staff and students taking part in the project. We ask evaluators and their staff to have DBS certificates.

The evaluator will have access to all the Outreach Officers and Science Theatre.

Timeline

- Week starting 30 October 2017 – Initial meeting with SEPnet Director of Outreach.
- Friday 10 November 2017 – Deadline for Evaluation plan to Director of Outreach and finalise on metrics.
- Monday 13 to Friday 24 November 2017 – Visits to pilot schools to measure baseline.
- Monday 13 November to December 2017 – Visits to schools for Workshop One.
- January 2018 to March 2018 – Visits to schools for Workshop Two.
- End of March 2018 – Produce a short mid-year report.
- April 2018 to mid-July 2018 – Visits to schools for Workshop Three.

- July 2018 – Final interviews at schools.
- July to August 2018 Work on initial draft of report.
- September 2018 Deliver final report.

Report

The final report should include:

- Findings from the delivery of workshops.
- Details on the metrics and toolkits used.
- Recommendations for improvements targeted at SEPnet for continuing the project.

Project Requirements

You will be required to:

- Liaise throughout the project with the Project Team and provide monthly updates to the SEPnet Director of Outreach.
- Work in a flexible, imaginative and responsive way.
- Deliver work to a high standard, particularly in relation to attention to detail, drafting, project management, communication and consultation.
- Demonstrate an understanding of the issues relating to Science Capital and the SPIRES project.

Budget & Deadline

SEPnet Outreach will accept proposals up to £7,000 which should include any travel expenses and VAT if applicable.

The £7,000 will be profiled across the three stages of the project as follows:

Stage 1 - £3,000 (Invoice on delivery of Evaluation Plan)

Stage 2 - £3,000 (Invoice on delivery of mid-year report)

Stage 3 - £1,000 (Invoice on delivery of final report)

Any underspend from a previous stage could be carried forward in your proposal. Any proposed budgets above this amount should be justified within the proposal.

You will be set up as a supplier at one the SEPnet partner universities. This process may take from 4 to 8 weeks, with initial payment taking an additional 4 weeks.

Deadline for proposals is **Monday 16 October 2017**. Short telephone interviews for the final three proposals will be on **Wednesday 18 / Thursday 19 October 2017**. Final decisions will be made by **Friday 20 October**.

Contact

Please contact SEPnet Director of Outreach, Dominic Galliano on 0207 882 5063 / 07702 363 731 or outreach@sepnet.ac.uk if you would like any further information.