

**Physics Teaching in Schools Module**

# **Project Proposal Form**

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**Placement School:** King Edward Five Ways School

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## **Details of Proposed Project**

**Title:** Oxbridge Entrants Physics and Mathematics Practice

### **Aims and Objectives:**

- To design and collect a series of questions and problems similar in format and difficulty to those faced at university level physics as well as entrance exams to such universities as Oxford and Cambridge.
- Use these to run a lunch time or after school session for the students to practise the sort of problems that they might face if they pursue physics beyond A-level.

**Age of Year Group of any pupils involved or targeted:** A-level

### **Brief description of methods/specific activities planned (with rough time scale):**

- Collect first year physics weekly problem sheet questions for a variety of subjects within physics
- Research and collect past exam paper questions for Oxford and Cambridge style entrance exams which demonstrate the need for physics knowledge and problem solving skills, not just the ability to apply values given in the questions to a predetermined situation (2-4 weeks)
- Arrange time for session with students. Ideally would be a Monday lunchtime or after school as that is the day that I am in school, but will have to not clash with any other science based club etc. (1 week).
- Give a range of questions to students in advance so that can look at and attempt some before the group session (1 week).
- Hold the voluntary session looking at the problems which cause problems or raise interest (1 week).
- Repeat with frequency based on feedback and demand from students (every 1, 2 or 3 weeks).

### **Brief description of how you are going to evaluate your project:**

- Feedback from students about the type of questions faced,
  - Were they what they had expected the questions to be like?
  - Were the questions answerable with the prior knowledge from physics classes or did they need to use other resources?

- Feedback from teacher,
  - Were the students generally interested in the tasks set based on the better knowledge of the students that the teacher has?
  - Did the sessions start any discussions/questions in class
- Numbers and general interest of the student attendees.