

Physics Teaching in Schools Module

# WEEKLY LOG SHEET 3

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**Week from** 21st Jan 2013 **to** 27th Jan 2013

## What have you done?

- Due to hazardous weather conditions the school was closed and so I was not able to be in the school this week.
- Instead I made some progress with the project for this term. The project involves running a lunch time/after school session(s) for those hoping to apply to do physics at university.
- I have researched some of the sorts of questions that appeared in previous years on the entry exams for such universities as Cambridge and Oxford as there is yearly a number of students who apply but do not get chance to practice the sort of questions they are likely to face.
- I have also gathered some questions that I think would be applicable and useful from the first year undergraduate physics and mathematics problem sheets which would also be good for pupils hoping to pursue physics to have a go with.

## What have you learnt?

- The jump from school A-levels to a university degree is particularly evident in physics in the way that students are required to think about the problems that are being asked of them.
- This project is useful for the current students as many of the questions I have found to compare with, from text books and past physics A-level papers are either the simple recalling information and writing it down style, or using the equation and the step by step procedure to use the right piece of information at the right time. Instead, at degree level, and in real life, the problem is very rarely so explicitly formulated. Hopefully, the questions that I will offer the pupils will challenge them to think in a new way which will be useful practice.
- This project is also reminding me of the extent to which school is aimed towards "exam technique" and how this is very good for passing exams at the end of learning about a particular subject, but offers minimum real world experience or knowledge.

## Outline any problems encountered:

- The main problem this week was not being able to be in the school due to the weather. The lesson here

is simply a case of being able to cope with unexpected situations, in this case having work that can be performed remotely, i.e. not needing to be on site, so that time is not lost overall. This is true of any job, but is particularly relevant with teaching as the situation can change so easily.

- I did encounter some challenges when getting hold of some of the papers from which to take questions, but soon found that many are freely available from past years.

### **How did you meet last week's objectives?**

- Unfortunately the objectives from last week all required being present at the school and so I have not made progress with them.
- I have been in contact with the teacher, and we have agreed that a lunchtime session I probably the best option and that the questions will be handed out a few days to a week prior to the first one so that the students can attempt them beforehand.

### **What are your objectives for the coming week?**

- Finalise a list of questions and problems and get copies for the students to look at in their own time prior to the problems session.
- Continue to get more involved in the planning and running of lessons.