

29 September 2010

Dear

**British Physics Olympiad A2 Challenge (previously paper 1)**

The A2 Challenge of the British Physics Olympiad will be held, at the Heber, on Tuesday 4 October during Period 4 in Room 50. If you need to miss a lesson in order to do the paper, you must (1) let me know the lesson subject and teacher concerned by the end of Monday, and (2) make every effort to catch up work missed. Please arrive promptly, and a little early if you can; if you are late, you will be wasting your own time.

**Form and Conduct**

The A2 Challenge will be of one hour's duration, and consist of six questions: you should attempt all questions. The first three questions are shorter, with the last three questions being more extended. For the most part, the questions are taken from AS topics (so you could usefully do some revision), but there will certainly be bits you have covered in A2 which are also useful (fields, nuclear energy, SHM &c.) Scientific (but not graphical) calculators, and A-level datasheets are permitted. You must show your working whenever you can.

As a few things you may wish to look at ahead of Tuesday, I should suggest:

- Power and efficiency
- Acceleration due to gravity
- Centres of mass
- Radioactive decay
- Young's modulus, Hooke's law
- Power in DC circuits

If you have time, you can have fun tackling the past papers from the last couple of years, which are on the E:HEBER site for physics competitions, to give to some idea of the style of question on Olympiad papers. They are quite tricky: don't be put off, and the practice you gain from doing them will be really helpful in your A-level. Feel free to email me or see me in school about these.

If you do well in the A2 Competition, you will get a certificate, and the school will consider entering you into the BPhO Round 1, which will take place on Friday 11th November 2011.

Good luck!

A.C. Norman.