

www.bpho.org.uk

October 2014

**For Students**

**Congratulations on being selected to participate in BPhO Round 1.**

The competition is designed to challenge and reward the best physicists in British schools and to select the UK Physics Olympiad Team of five students for competition at international level. In 2015 the International Physics Olympiad takes place in early July in Mumbai, India. Further information about the Round 1 competition can be found below and on our website: [www.bpho.org.uk](http://www.bpho.org.uk).

**Structure of the paper**

The paper comes in two Sections (1hr 20min each) and can be sat in either one or two sittings:

* Section 1: You are given a wide selection of question and can attempt any parts. However, a *maximum mark of 40* can be obtained over all parts.
* Section 2: You choose only TWO long answer questions to answer.

**The questions**

The questions allow you to test your knowledge and to practise open-ended and unstructured questions, as seen at higher levels of study. The questions are about problem solving and you will be expected to find the appropriate ‘route’ to obtain the solution. You may also need to draw upon different areas of physics to solve a problem.

The paper contains a wide selection of questions for you to choose from. This is because you will have covered different material from students in other schools. The choice ensures that there are questions for everyone to answer and you are not expected to have covered all of the material in the paper.

Please do not be disappointed if you find the paper challenging. It is written to challenge strong students like yourselves, and you will continue to develop your problem solving skills through your studies in physics.

**How to prepare**

Problem solving skills are developed over time, so practice makes perfect. Visit [www.BPhO.org.uk](http://www.BPhO.org.uk) to view past papers with solutions. Work through some problems to familiarise yourself with the style of question.

**Tips for answering the questions**

You must write down the question in terms of symbols and equations, and try calculating quantities in order to work towards a solution. You will need to show your reasoning by showing your working. Even if you cannot complete the question, show how you have started your thinking; with ideas and, generally, by drawing a diagram.

**P.T.O**

**Award and prizes**

The paper is designed to test understanding and problem solving skills at an advanced level. Therefore, gaining an award in the British Physics Olympiad is a prestigious and valued achievement for a CV and for a personal statement in a UCAS application.

Over 1,800 students participate each year and awards are allocated based on students’ performance. Each year we allocate the following number of awards; 50 Top Gold; 100 Gold; 100 Silver; 200 Bronze I; 200 Bronze II. All participants receive a certificate and Gold award winners receive a book price.

Students who attend the Oxford Training Camp will also be invited to an awards ceremony at the Royal Society in London on Wednesday 29th April.

**International Physics Olympiad**

The top 50 students from BPhO Round 1 will be invited to participate in BPhO Round 2. Students have usually achieved a mark of over 65% to qualify for BPhO Round 2.

The top 15 students from BPhO Round 2 will then be invited to take part in the Oxford training camp held at the University of Oxford from Monday 30th March to Thursday 2nd April 2015. Here the final team for the International Physics Olympiad will be selected, which next year takes place in Mumbai, India from 4th -13th July 2015**.** Visit the BPhO website for more information.

**The test date**

Talk to your teacher about the details of the test. Your teacher will inform you of the test date and venue, and you can make a note here:

Section 1: Test date…………………………………………………… Time…………………………....

Section 2: Test date…………………………………………………… Time…………………………....

Venue………………………………………………………………………..

**Future dates for your diary**

* BPhO Round 2 Monday 26th January 2015
* Oxford Training Camp – Round 3 Easter vacation - Mon 30th March to Thurs 2nd April 2015
* Experimental training Camp Sat 23rd May – Monday 25th May (tbc)
* Trinity College Cambridge Training Camp Sunday 28th June – Friday 3rd July 2015
* International Physics Olympiad, Mumbai 4th – 13th July, 2015

Have fun problem solving!

Kind regards,

Lena Shams

British Physics Olympiad Secretary

Website: [www.bpho.org.uk](http://www.bpho.org.uk)

Facebook: [www.facebook.com/The.BPhO](http://www.facebook.com/The.BPhO)