

Paper	Experimental Project	Computational Physics Challenge	Junior Astro Challenge Online	SPC Online	IPC Online	Intermediate Physics Challenge	Senior Physics Challenge	Junior Physics Challenge Online	Y7/7 Challenge Online NEW
Year group	Yr10/11 & Yr12/13	Y11-Y13	Y9, Y10, Y11	Yr 12 or below	Yr 11	Yr 11	Yr 12 or below	Yr 10	Yr 7/8
Delivery	Via CP.	Via BPhO website where details of links to the webinar course can be found.	Via CP.	Via CP.	Via CP.	Via CP. <i>PDF version only</i>	Via CP. <i>PDF version only</i>	Via CP.	Via CP.
Test date	Available from: <b>Oct 2024</b> Project submitted by <b>Friday 2<sup>nd</sup> Feb 2024</b>	Competition runs from April – August 2024 Project submitted by <b>mid-August 2024</b>	Open from <b>Fri 3<sup>rd</sup> to Fri 24<sup>th</sup> Nov 2024</b>	Open from <b>Mon 22<sup>nd</sup> - Fri 26<sup>th</sup> Jan 2024</b>	Open from <b>Mon 29<sup>th</sup> Jan – Fri 2<sup>nd</sup> Feb 2024</b>	<b>Friday 1<sup>st</sup> March 2024</b>	<b>Fri 8<sup>th</sup> March 2024</b>	Open from <b>Fri 26<sup>th</sup> April - Fri 17<sup>th</sup> May 2024</b>	Open from <b>Fri 28<sup>th</sup> April - Wed 17<sup>th</sup> May 2023</b>
Overview	The project gives students hands-on experience of planning and undertaking an open-ended expt., working in ones, twos or threes, and communicating their findings.	A set of talks each week Jan – March sets the scene for a project in modelling. Students can work individually or in pairs.	Two online multiple choice quizzes to generate interest in a national astronomy competition. Many easy marks with a few more testing questions. 2 x 30 questions	Two online m/c quizzes to generate interest in a national physics competition. 2 x 20 questions	Two online m/c quizzes to generate interest in a national physics competition. (2 x 20 questions)	The paper has a more mathematical style for this age group and includes m/c and short answer sections. Suitable for students who are predicted to achieve good grade for either Dual Award or separate physics.	Stretches physics thinking and encourages students to apply physics they know to novel situations. Provides an excellent tool to stretch and challenge good students.	Two online multiple choice quizzes to generate interest in a national physics competition. Many easy marks with some more testing questions. (2 x 30 questions)	Two online multiple choice quizzes to generate interest in a national physics competition. Many easy marks with some more testing questions. (2 x 30 questions)
Length	Open ended	Open ended	2 x 25 minutes	2 x 30 minutes	2 x 30 mins	1 hour	1 hour	2 x 25 minutes	2 x 25 minutes
Marked	Teachers select the best entry to submit to BPhO for age groups G and A	By the BPhO.	<b>An Online competition</b>	<b>An Online competition</b>	<b>An Online competition</b>	In school, mark scheme provided	In school, mark scheme provided	<b>An Online competition</b>	<b>An Online competition</b>
Certificates	Gold, Silver, Bronze, Commendation. Certificates emailed out.	Gold, Silver, Bronze, Participation. Certificates from CP.	Gold, Silver, Bronze, Participation. Certificates from CP.	Gold, Silver, Bronze, Participation. Certificates from CP.	Gold, Silver, Bronze and Participation. Certificates from CP.	Gold, Silver, Bronze, Participation. Certificates from CP.	Gold, Silver, Bronze, Participation. Certificates from CP.	Gold, Silver, Bronze, Participation. Certificates from CP.	Gold, Silver, Bronze, Participation. Certificates from CP.
Book prizes			<b>We will award some book prizes in 2024</b>						
Cost (for UK schools – for International see web page)	Free. PDF paper	Free. Students enter themselves.	£20 for a whole school	£20 for a whole school	£20 for a whole school	Free. PDF paper	Free. PDF paper	£20 for a whole school	£20 for a whole school

- International schools may sit the Challenge papers after the UK schools – see website for details.
- Rounds 2 of the BPhO is by invitation only, and with Round 1 is used to select the UK team for the International Physics Olympiad. The BAAO Competition Paper is largely by invitation, but teachers may request to enter students also. This and BPhO Round 1 are used for selection of the UK team for the IOAA. Papers are designed to favour all exam boards equally.
- Some of the students (and a teacher) achieving the highest results in the Competitions will be invited to a prize giving ceremony at the Royal Society in late April. More information about the competitions can be found here: [www.bpho.org.uk](http://www.bpho.org.uk).

## Dates and Summary of BPhO/BAAO Competitions 2023 - 24

### Year 13 leading to Team selection

Paper	Physics Challenge	Astro Challenge	BPhO Round 1	BAAO Astro Round 1 NEW	BPhO Round 2	BAAO Astro Round 2
Year group	Yr 13 or below	Yr 13 or below	Yr 13 or below	Yr 13 or below	Yr 13 or below	Yr 13 or below
Delivery	Via CP.	Via CP.	Via CP. Nov 2024	Via CP.	Emailed By Invitation only. Mainly students who get a Top Gold in Round 1	Emailed By invitation. Required to take the BPhO Round 1 paper in November and / or the Astro Round 1 paper in January
Test date	Available: <b>October 2024</b> Certificate deadline: <b>Dec 2023</b>	Available: <b>October 2024</b> Cert. deadlines: <b>Dec 2023</b>	<b>Fri 10<sup>th</sup> Nov 2023</b> Scanned paper returned by <b>Fri 17<sup>th</sup> Nov 2023</b>	<b>Tues 23<sup>rd</sup> Jan 2024</b> Scanned paper returned by <b>Fri 26<sup>th</sup> Jan 2024</b>	<b>Mon 5<sup>th</sup> Feb 2024</b> Scanned papers returned by <b>Fri 9<sup>th</sup> Feb 2024</b>	<b>Tuesday 20<sup>th</sup> Feb 2024</b> Scanned papers returned by <b>Fri 23<sup>rd</sup> Feb 2024</b>
Overview	To develop students' interest in problem solving. It prepares them for questions which require analysis of information to work out the answer through the use of "simpler" physics ideas.	Physics ideas applied to astronomy through problem solving to allow students to analyse observational data through to a conclusion. Based on core physics, with extra detail being supplied in the paper.	Our flagship competition with a dual purpose: to challenge and reward the best problem-solving physicists in UK schools and to select the UK Teams for the IPhO and for the IOAA. Paper Sections can be sat in two occasions.	A new competition as an alternative entry route to the IOAA team. Section 1 is a set of short questions, Section 2 is from a choice of long questions. See BPhO webpage.	A more challenging paper about problem solving through setting up models, making predictions and explaining real world effects.	The Astro Round 2 is a mixture of astrophysics and physics questions that allows students to apply many of the mathematical techniques and physical concepts encountered in their studies to analyse and explain phenomena in astrophysical contexts, with extra detail / formulae being provided in the question if needed.
Length	1 hour	1 hour	2 h 40 m	2 hours	3 hours	3 hours
Marked	In school, mark scheme provided	In school, mark scheme provided. Out of 30 marks.	By the BPhO team.	By the BPhO team.	By the BPhO team.	By the BPhO team.
Certificates	Merit: 20/50 or above. Participation: 19 marks or below. Certificates from CP.	Distinction: >60% Merit >40% & Participation. Certificates from CP.	Top Gold, Gold, Silver, Bronze I, Bronze II, Participation. Certificates from CP.	Gold, Silver, Bronze and Participation certificates from CP.	≈ 15 Gold ≈ 15 Silver ≈ 20 Bronze	Gold ~60%, Silver ~40%, Bronze ~20% & Commendation certificates emailed out.
Book prizes						
Cost (for UK schools – for International see web pages)	Free. PDF paper	Free. PDF paper	£18 per entry (four free entries for UK non-fee-paying schools)	£15 per entry (four free entries for UK non-fee-paying schools)	Free Paper emailed to teacher	Free Paper emailed to teacher

- International schools may sit the Challenge papers after the UK schools – see website for details.
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