

STUDENT WEBINAR

NEW: A LEVEL PHYSICS: ADDRESSING PHOTOELECTRIC EFFECT AND WAVE PARTICLE DUALITY QUESTIONS

FOCUS

This NEW online student session is aimed at consolidating knowledge in preparation for successful assessment in summer 2021.

The webinar will focus on the key challenges of the **photoelectric effect** and **wave particle** duality and address qualitative and problem-solving questions that are likely to be asked on these topics. The online course is interactive, with Q & A discussion time and opportunities for students to ask questions built in. There will also be one or two tasks.

Students will also receive valuable course notes written and produced by the session leader, a current examiner in A level Physics.

PROGRAMME

	TIME
Welcome and Introduction	4.00 - 4.05pm
Einstein and Planck's idea	4.05 - 4.20pm
<ul style="list-style-type: none"> ● Simulating the key experiment (Phet); how to visualise the quantum world ● The wave model versus the quantum model; how to compare the two models ● What exactly is a quantum? ● Examples of good exam responses 	
The Photo Electric Effect	4.20 - 4.35pm
<ul style="list-style-type: none"> ● Focus on Einstein's key equation; defining the key terms ● How does the new interpretation differ from the old? ● Exam questions: applying Einstein's equation to solve exam questions 	
Wave Particle Duality	4.35 - 4.45pm
<ul style="list-style-type: none"> ● The experimental evidence for electron waves (<i>Phet simulation</i>) ● What does the de Broglie equation actually mean? ● Using de Broglie to solve problems ● Pitfalls to avoid in answering questions on wave particle duality ● Examples of top level responses, what you need to do to be assured of top level marks in these questions. Brief analysis of the mark scheme 	
Describe/Explain Questions	4.45 - 5.00pm
<ul style="list-style-type: none"> ● Student activity: answer these questions ● Analysis of the mark scheme ● Quick Multiple Choice Quiz: high speed strategies for 1 mark questions ● Sign off 	

WHY SHOULD YOU BOOK A STUDENT WEBINAR?

- ✓ Give your students the edge to find out directly from examiners how to maximise their achievement potential
- ✓ Consolidate and deepen key knowledge essentials
- ✓ Listen to and discuss exemplar work
- ✓ Find out more about the key challenges and what the examiner is looking for in top quality work

DATE

Tuesday 27 April 2021
Tuesday 29 June 2021

WEBINAR LEADER

Tony Dunn is a current examiner in A-level Physics for a major awarding body. He has taught for over 30 years in secondary schools and sixth form colleges, mainly in inner city areas, specialising in A-level Physics. Since the new A-level curriculum was introduced, he has had 100% pass rates with all his A-level Physics groups, whilst working at an inclusive college in a deprived borough. He was a Head of Science for 12 years and also spent several years training Physics teachers in SE Asia.

FOCUS POINTS

- Give opportunity for students to hear key points and key messages direct from a current examiner
- Take away a deepened knowledge and skills base of advice and guidance to access the higher grades in examinations
- Enhance your understanding of key areas of Physics, all linked directly to the exam papers
- Take away a full set of conference notes, with examination tips and example answers