STUDENT WEBINAR

A LEVEL PHYSICS: THE PHYSICS OF WAVES

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 **interference of waves** and **refraction of light** 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

Key Essentials & Exam Questions: Diffraction Patterns 4.05 - 4.25pm

- Use of diffraction simulation software to deepen understanding of interference
- How to explain the process of superposition verbally
- Explaining and applying the double slit and diffraction formulae
- Questions, question types on diffraction patterns, model answers

Key Essentials & Exam Questions: Standing Waves 4.25 - 4.45pm

- Using a *Phet simulation* demonstration to explain how standing waves are produced
- How to compute the harmonics for waves on strings and in pipes
- Learning how to use an oscilloscope to analyse wave properties
- Tackling questions on different types of standing wave including practical-based questions
- Grade A/A* responses and pitfalls to avoid

Tackling Questions on the Refraction of light 4.45 - 5.00pm

- Understanding the concept of refractive index and Snell's Law
- Using simulation software to demonstrate of the concepts of critical angle and TIR
- Solving complex problems with two or more media
- Looking at more complex questions relating to application of refraction (particularly fibre optics)
- Grade A Grade A/A* responses on describe/explain questions
- Tackling the key challenge areas

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

Wednesday 07 July 2021

WEBINAR LEADER

Tony Dunn has taught for over 30 years in secondary schools and sixth form colleges, mainly in inner city areas, specialising in A-level Physics. He was Head of Science for 12 years and spent several years training Physics teachers in SE Asia. He has been an examiner for OCR A-level Physics for the past five years and developed CPD courses, webinars and student conferences for Keynote for over a year.

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 what examiners are looking for when answering questions on interference of waves and refraction of light
- Take away a full set of conference notes, with examination tips and example answers