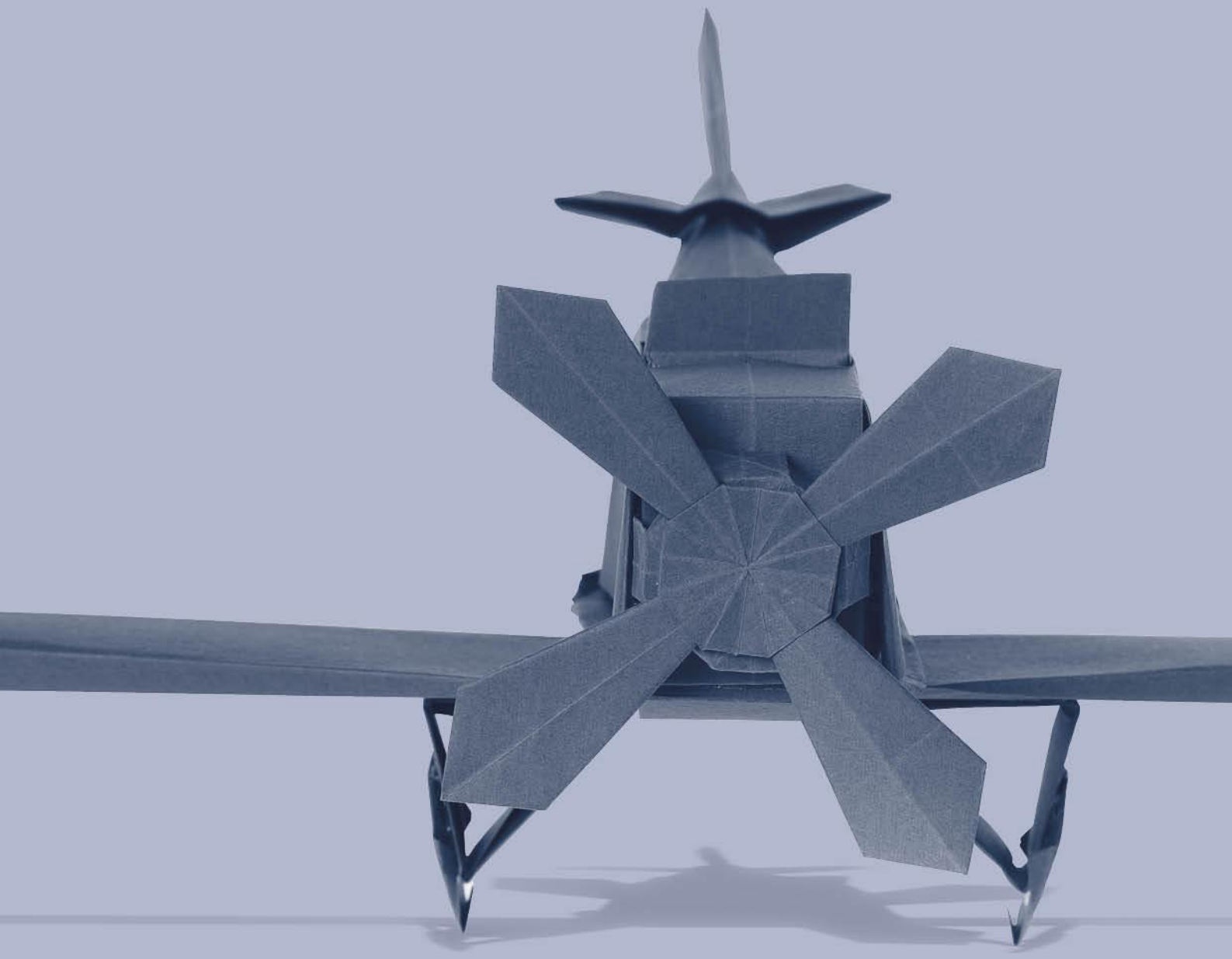
edexcel

AS and A Level Physics



WHAT'S CHANGED?

AS and A level mapping document

ALWAYS LEARNING

PEARSON

Edexcel GCE Physics

What's changed?

Level	Topic	Spec Points	New Content Included	Content Not Included in the New Spec
AS	Mechanics	5	Recognise vector notation	
AS	Mechanics	15, 20	Conservation of momentum in one dimension	
AS	Mechanics	16	Principle of moments	
AS	Materials			Fluid flow diagrams, streamline flow Definitions of mechanical properties such as brittle, ductile, hard, malleable, tough
AS	Electric Circuits	28	Derivation of equations for resistors in series and parallel	
AS	Electric Circuits	39	Conduction models and the LDR	
AS	Waves and Particle Nature of Light	59	Use the equation for the speed of a transverse wave on a string $v = \sqrt{\frac{T}{\mu}}$	Identify and describe applications of regions of the electromagnetic spectrum Explain how different media affect the transmission/reflection of waves Radiation flux is replaced by intensity.
AS	Waves and Particle Nature of Light	64, 65, 66, 67, 68	Focal length of lenses Use ray diagrams to trace rays Power of a lens Real and virtual images Use of lens formula Linear magnification	Qualitative explanation of how the relative movement between source and observer gives rise to a shift in frequency. (Moved to AL) Discuss social and ethical issues that need to be considered.

AS	Waves and Particle Nature of Light	71	Use of Huygens construction Diffraction $n\lambda = d\sin\theta$	Explore how science is used by society to make decisions.
AS	Waves and Particle Nature of Light	87	Use the de Broglie equation $\lambda = h/p$	

A Level	Further Mechanics	105	Be able to use vector diagrams to derive the equations for centripetal acceleration	Use the de Broglie equation $\lambda = h/p$ moved to AS. Use of $p = mv$ and conservation of momentum in one dimension moved to AS.
A Level	Electric and Magnetic Fields	112, 115 116	Electric potential and equipotential lines	
A Level	Electric and Magnetic Fields	128, 129	Simple alternating current theory: r.m.s. currents and voltages	
A Level	Nuclear and Particle Physics	142	Baryon number and lepton number used to determine whether a particle interaction is possible	
A Level	Thermodynamics	146	Specific latent heat	
A Level	Thermodynamics	149	Derive and use $pV = \frac{1}{3}Nm\langle c^2\rangle$ Using the kinetic theory model	
A Level	Thermodynamics	152	Derive and use ½ $m\langle c\rangle^2 = 3/2\ kT$	
A Level	Thermodynamics	156	Use the equation for the intensity of radiation $I = P/A$	
A Level	Space	162	Understand how the relative movement between source and observer gives rise to a shift in frequency (Doppler effect)	
A Level	Nuclear Radiation	167	Link the processes of fission and fusion to the binding energy per nucleon curve	
A Level	Gravitational Fields	179	Use of the equation $V_{grav} = -GM/r$ for a radial gravitational field.	
A Level	Oscillations	184	Use of the equations for a simple harmonic oscillator $T = 2\pi\sqrt{(m/k)}$ and $T = 2\pi\sqrt{(l/g)}$	