

# CIE A Level Physics

## TOPIC CHECKLIST

Section	Topic	Studied (✓ / X)	Notes (✓ / X)	Multiple Choice (%)	Theory (%)
1. Physical Quantities & Units	Physical Quantities & Units				
	Measurements & Errors				
2. Kinematics	Equations of Motion				
3. Dynamics	Newton's Laws of Motion				
	Linear Momentum & Conservation				
4. Forces, Density & Pressure	Forces: Turning Effects & Equilibrium				
	Forces: Density & Pressure				
5. Work, Energy & Power	Energy: Conservation, Work, Power & Efficiency				
	Energy: GPE & KE				
6. Deformation of Solids	Deformation: Stress & Strain				
	Deformation: Elastic & Plastic Behaviour				
7. Waves	Waves: Transverse & Longitudinal				
	Transverse Waves: EM Spectrum & Polarisation				
8. Superposition	Stationary Waves				
	Diffraction & Interference				
9. Electricity	Current & Potential Difference				
	Resistance				
	Resistivity				
10. D.C. Circuits	DC: Practical Circuits & Kirchhoff's Laws				
	DC: Potential Dividers				
11. Particle Physics	Atoms, Nuclei & Radiation				
	Fundamental Particles				
12. Motion in a Circle	<b>Kinematics of Uniform Circular Motion (A Level only)</b>				
	<b>Centripetal Acceleration (A Level only)</b>				
13. Gravitational Fields	<b>Universal Gravitation (A Level only)</b>				
	<b>Gravitational Potential (A Level only)</b>				
14. Temperature	<b>Measuring Temperature (A Level only)</b>				
	<b>Phase Changes (A Level only)</b>				
15. Ideal Gases	<b>Ideal Gas Law (A Level only)</b>				
	<b>Kinetic Theory (A Level only)</b>				
16. Thermodynamics	<b>The First Law of Thermodynamics (A Level only)</b>				
17. Oscillations	<b>Simple Harmonic Motion (A Level only)</b>				
	<b>Damped Oscillations (A Level only)</b>				
18. Electric Fields	<b>Electric Fields (A Level only)</b>				
	<b>Electric Potential (A Level only)</b>				
19. Capacitance	<b>Capacitors (A Level only)</b>				
	<b>Charging and Discharging (A Level only)</b>				
20. Magnetic Fields	<b>Magnetic Fields (A Level only)</b>				
	<b>Electromagnetic Induction (A Level only)</b>				
21. Alternating Currents	<b>Properties and Uses of Alternating Current (A Level only)</b>				

22. Quantum Physics	The Photoelectric Effect (A Level only)				
	Wave-Particle Duality (A Level only)				
	Quantisation of Energy (A Level only)				
23. Nuclear Physics	Mass Defect & Nuclear Binding Energy (A Level only)				
	Radioactive Decay (A Level only)				
24. Medical Physics	Ultrasound & X-rays (A Level only)				
	PET Scanning (A Level only)				
25. Astronomy & Cosmology	Astronomy (A Level only)				
	Cosmology (A Level only)				