

New A Level Physics A

H158 and H558 replacing 3883 and 7883

Information for OCR centres transferring to **new specifications for first teaching in September 2008**

This document maps the current A Level Physics specification to the new specification for first teaching in September 2008. It includes information on the changes, support available and an outline of the new specification. It is intended to help ease the transition for Heads of Department and Teachers involved in the teaching of Physics.

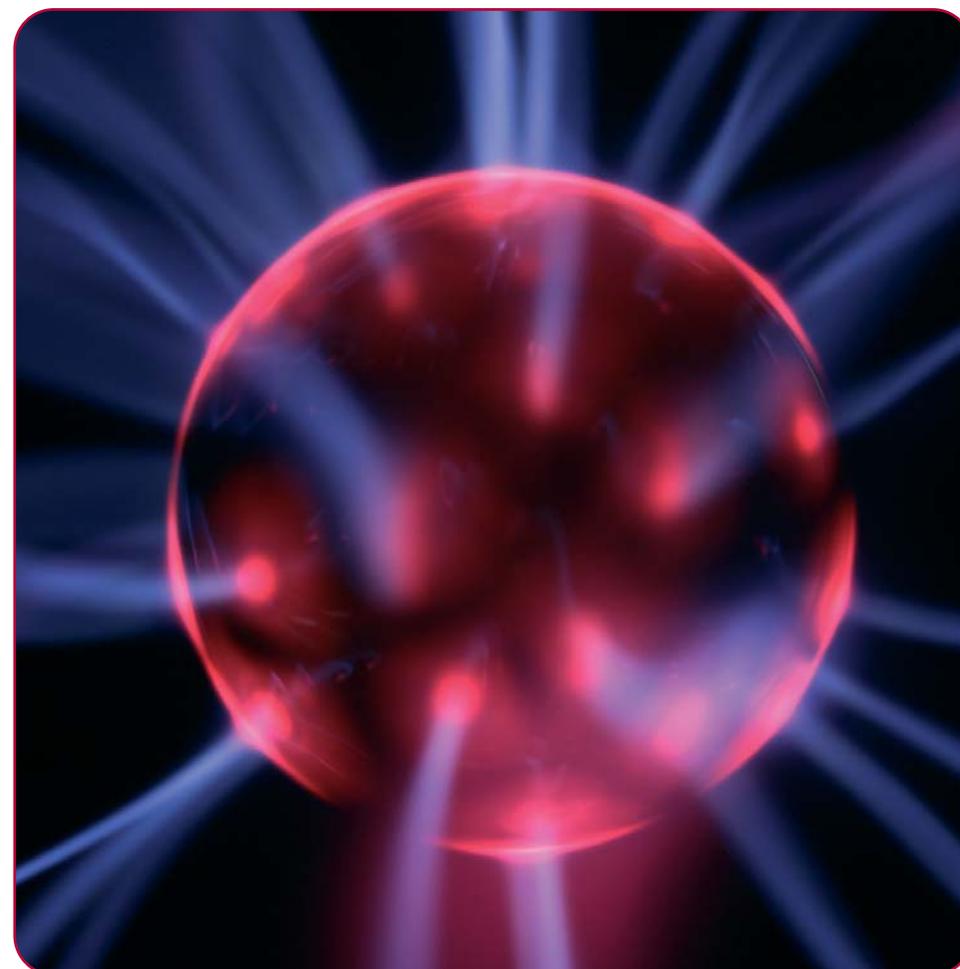
The full specification is available online along with a short questionnaire enabling you to share your comments on the specification and help shape the materials developed to support it. For more information including answers to frequently asked questions visit www.ocr.org.uk/14-19alevels

Current specification – mapping the changes **pages 2-3**

Outline specification for first teaching September 2008 **page 4**

QCA have stipulated that:

- Number of units required to achieve GCE in Physics remains at six
- Coursework is retained as controlled assessment
- Stretch and Challenge style questions to be introduced into A2 assessment.



Mapping the changes to the A Level Physics specification for first teaching September 2008

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Existing specification						
	Current unit title	Unit code	What remains the same?	What is changing?	Why is it changing?	Guidance
AS	Forces and Motion	2821 Mandatory 30% (AS) 15% (A Level) 1hr written exam	<ul style="list-style-type: none"> Assessment weighting and duration. The majority of the content remains the same. 	<ul style="list-style-type: none"> Minor changes to update the content. 	<ul style="list-style-type: none"> QCA change of criteria. OCR recognised the need to improve setting of questions. 	
AS	Electrons and Photons	2822 Mandatory 30% (AS) 15% (A Level) 1hr written exam	<ul style="list-style-type: none"> The majority of the content remains the same. 	<ul style="list-style-type: none"> Combining with 2823/01 Wave Properties as Unit G482 in the new specification. 		
	Wave properties/ Experimental Skills 1	2823 Candidates take either components 01 and 02 or 01 and 03			<ul style="list-style-type: none"> QCA will not permit options in the new specifications. 	
AS	01 Wave Properties	Mandatory 20% (AS) 10% (A Level) 45min written exam	<ul style="list-style-type: none"> The majority of the content remains the same. 	<ul style="list-style-type: none"> Combining with 2822 Electrons and Photons as G482 in the new specification. 		
	02 Coursework 1	Optional 20% (AS) 10% (A Level) Coursework	<ul style="list-style-type: none"> Coursework requirement remains but under controlled assessment conditions. 	<ul style="list-style-type: none"> Current scheme is disappearing, to be replaced with new controlled assessment. 	<ul style="list-style-type: none"> QCA requirements and the need to reduce the amount of assessment teachers have. 	
	03 Practical examination 1	Optional 20% (AS) 10% (A Level) 1.5hr practical exam	<ul style="list-style-type: none"> No longer offered.. 	<ul style="list-style-type: none"> No practical exam. 	<ul style="list-style-type: none"> QCA rules require practical skills to be internally assessed. 	

Existing specification					
Current unit title	Unit code	What remains the same?	What is changing?	Why is it changing?	Guidance
A2 Forces, Fields and Energy	2824 Mandatory 15% (A Level) 1.5hr written exam		<ul style="list-style-type: none"> Moving: Electric and magnetic fields; capacitor and exponential decay; some nuclear physics into Unit 5 (G485) of the new specification. 	<ul style="list-style-type: none"> Allows for a shorter unit 4 in the new specification, making it more manageable for the January exam. 	
	Options in Physics	2825 Mandatory. Candidates take one of components 01 to 05			<ul style="list-style-type: none"> QCA will not permit options in the new specifications.
01 Cosmology	Optional 15% (A Level) 1.5hr written exam	<ul style="list-style-type: none"> Options are being withdrawn. 	<ul style="list-style-type: none"> Moving: Structure of the Universe; Evolution of the Universe into Unit 5 (G485) of the new specification. 		
02 Health Physics	Optional 15% (A Level) 1.5hr written exam	<ul style="list-style-type: none"> Options are being withdrawn. 	<ul style="list-style-type: none"> Moving: X Rays; Diagnostic methods in medicine; Ultrasound into Unit 5 (G485) of the new specification. 	<ul style="list-style-type: none"> QCA will not permit options in the new specifications. 	
A2 03 Materials	Optional 15% (A Level) 1.5hr written exam	<ul style="list-style-type: none"> Options are being withdrawn. 	<ul style="list-style-type: none"> All content withdrawn. 	<ul style="list-style-type: none"> QCA will not permit options in the new specifications. There was little demand for Materials from centres. 	
04 Nuclear and Particle Physics	Optional 15% (A Level) 1.5hr written exam	<ul style="list-style-type: none"> Options are being withdrawn. 	<ul style="list-style-type: none"> Moving: Nuclear atom; Fundamental particles; Nuclear fission and fusion into Unit 5 (G485) of the new specification. 	<ul style="list-style-type: none"> QCA will not permit options in the new specifications. 	
05 Telecommunications	Optional 15% (A Level) 1.5hr written exam	<ul style="list-style-type: none"> Options are being withdrawn. 	<ul style="list-style-type: none"> All content withdrawn. 	<ul style="list-style-type: none"> QCA will not permit options in the new specifications. There was little demand for Telecommunications from centres. 	
Unifying Concepts in Physics/Experimental Skills 2	2826 Candidates take either component 01 and 02 or components 01 and 03				
A2 01 Unifying Concepts in Physics	Mandatory 10% (A Level) 1hr 15min written exam				
02 Coursework 2	Optional 10% (A Level) Coursework	<ul style="list-style-type: none"> Coursework requirement remains but under controlled assessment conditions. 	<ul style="list-style-type: none"> Current scheme is disappearing. 	<ul style="list-style-type: none"> QCA requirements and the need to reduce the amount of assessment teachers have. 	
03 Practical Examination 2	Optional 10% (A Level) 1.5hr practical exam	<ul style="list-style-type: none"> No longer offered. 	<ul style="list-style-type: none"> No practical exam. 	<ul style="list-style-type: none"> QCA rules require practical skills to be internally assessed. 	

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For AS GCE all three units are mandatory. For Advanced GCE all six units are mandatory.

	New unit title	New unit code	Benefits to me and my learners	Support
AS	Mechanics	G481 Mandatory 30% (AS) 15% (A Level) 1hr written exam	<ul style="list-style-type: none"> • Three modules comprising: Motion; Forces in Action; Work and Energy. Three modules make it easier for working with schemes of work. • Unit is shorter to allow centres maximum opportunity to enter candidates in January. 	<ul style="list-style-type: none"> • Comprehensive resources from Heinemann. • INSET programme. • Schemes of Work for guidance.
AS	Electrons, Waves and Photons	G482 Mandatory 50% (AS) 25% (A Level) 1hr 45min written exam	<ul style="list-style-type: none"> • Five modules comprising: Electric Current; Resistance; DC Circuits; Waves; Quantum Physics. • Five modules make it easier for working with schemes of work. 	<ul style="list-style-type: none"> • Comprehensive resources from Heinemann. • INSET programme. • Schemes of Work for guidance.
AS	Practical Skills in Physics 1	G483 Mandatory 20% (AS) 10% (A Level) Internal assessment	<ul style="list-style-type: none"> • Internal assessment. Requires completion of tasks set by OCR. OCR will provide mark schemes for centres to assist you with internal assessment. Choice of tasks to be downloaded from secure website. Controlled conditions. Postal moderation. 	<ul style="list-style-type: none"> • Comprehensive resources from Heinemann. • INSET programme. • Schemes of Work for guidance. • Internal assessment guidance.
A2	Newtonian World	G484 Mandatory 15% (A Level) 1hr written exam	<ul style="list-style-type: none"> • Unit is shorter to allow centres maximum opportunity to enter candidates in January. • Three modules comprising Newton's Laws and Momentum; Circular Motion and Oscillations; Thermal Physics. Three modules make it easier for working with schemes of work. • Stretch and Challenge questions. 	<ul style="list-style-type: none"> • Comprehensive resources from Heinemann. • INSET programme. • Schemes of Work for guidance.
A2	Fields, Particles and Frontiers of Physics	G485 Mandatory 25% (A Level) 1hr 45min written exam	<ul style="list-style-type: none"> • Five modules comprising: Electric and Magnetic Fields; Capacitors and Exponential Decay; Nuclear Physics; Medical Imaging; Modelling the Universe. Five modules make it easier for working with schemes of work. • Stretch and Challenge questions. 	<ul style="list-style-type: none"> • Comprehensive resources from Heinemann. • INSET programme. • Schemes of Work for guidance.
A2	Practical Skills in Physics 2	G486 Mandatory 10% (A Level) Internal assessment	<ul style="list-style-type: none"> • Internal assessment. Requires completion of tasks set by OCR. OCR will provide mark schemes for centres to assist you with internal assessment. Choice of tasks to be downloaded from secure website. Controlled conditions. Postal moderation. 	<ul style="list-style-type: none"> • Comprehensive resources from Heinemann. • INSET programme. • Schemes of Work for guidance. • Internal assessment guidance.