

Syllabus matching grid – OxfordAQA International GCSE Physics Student Book

This syllabus matching grid identifies which section of the OxfordAQA International GCSE Physics syllabus each Unit in the Student Book maps to. It also identifies whether the Unit is relevant to the original “extended” syllabus (9203) or just the new “core” syllabus (9223). Note that study of the topics identified as Core is required for the Extended syllabus also.

Page	Unit title	Core or extended?	Oxford AQA Syllabus section	Notes
2	1.1 Forces between objects	Core and Extended*	3.1.1 a, b, c* 3.1.3a	
4	1.2 Resultant force	Core	3.1.3b, g	
6	1.3 Force as a vector	Extended	3.1.1d*	
8	1.4 Mass and weight	Core	3.1.1e	
10	1.5 Forces and elasticity	Core and Extended*	3.1.1f*, g, h	Required practical
12	Chapter summary questions			
14	2.1 Speed	Core and Extended*	3.1.2a, b, d*	
16	2.2 Velocity and acceleration	Core	3.1.2c 3.1.3d	
18	2.3 More about velocity-time graphs	Core	3.1.3e, f	
20	2.4 Using graphs	Core	3.1.3e, f	
22	2.5 Forces and acceleration	Core	3.1.3h	
24	2.6 Forces and braking	Core and Extended*	3.1.5a, b, c, d*, e	
26	2.7 Forces and terminal velocity	Extended*	3.1.6a*, b*, c*	
28	Chapter summary questions			
30	3.1 Momentum	Extended*	3.14a*, b*	
32	3.2 Explosions	Extended*	3.14b*	
34	3.3 Impact forces	Extended*	3.14c*	
36	3.4 Safety first	Extended*	3.14b*	
38	Chapter summary questions			

40	4.1 Centre of mass	Core	3.1.7a, b, c	
42	4.2 Moments at work	Extended*	3.1.8a*, d*	
44	4.3 Moments in balance	Extended*	3.1.8b*	
46	4.4 Stability	Extended*	3.1.8c*	
48	Chapter summary questions			
50	5.1 Energy and work	Extended*	3.2.1a*, b*	
52	5.2 Power	Core	3.2.1f	
54	5.3 Gravitational potential energy	Core	3.2.1d	
56	5.4 Conservation of energy	Core and Extended*	3.2.2a, b*, c	
58	5.5 Kinetic energy	Core and Extended*	3.2.1c*, e	
60	5.6 Useful energy	Core	3.2.2d, e	
62	5.7 Energy and efficiency	Extended*	3.2.2f*, g*	
64	Chapter summary questions			
66	6.1 Energy demands	Core	3.2.3a, b	
68	6.2 Energy from wind and water	Core	3.2.3d	
70	6.3 Power from the Sun and the Earth	Core	3.2.3d	
72	6.4 Energy and the environment	Core	3.2.3c	
74	Chapter summary questions			
76	7.1 The nature of waves	Core and Extended*	3.3.1a, b*, c*, d* 3.3.3a	
78	7.2 Measuring waves	Core	3.3.1g, h	
80	7.3 Reflection and refraction	Core and Extended*	3.3.1e, f*	
82	7.4 Diffraction	Core	3.3.1f	
84	Chapter summary questions			
86	8.1 The electromagnetic spectrum	Core and Extended*	3.3.2a*, b, c, h	
88	8.2 Light, infrared, microwaves, and radio waves	Core and Extended*	3.3.2d*, g, h, i	
90	8.3 Communications	Core	3.3.2g, i	

92	8.4 Ultraviolet rays, X-rays, and gamma rays	Core and Extended*	3.3.2h, l, j*, k*	
94	8.5 X-rays in medicine	Extended*	3.3.2l*, m*	
96	Chapter summary questions			
98	9.1 Sound	Core	3.3.3c	
100	9.2 More about sound	Core	3.3.3b	
102	9.3 Ultrasound	Extended*	3.3.3d*, e*, f*, g*, h*	
104	Chapter summary questions			
106	10.1 Reflection of light	Core	3.3.4a, b, c	
108	10.2 Refraction of light	Core and Extended*	3.3.5a, b, c*	
110	10.3 Refractive index	Extended*	3.3.5d*, e*	Extended only required practical
112	10.4 Total internal reflection	Extended*	3.3.5f*, g*, h*	
114	Chapter summary questions			
116	11.1 Lenses	Extended*	3.3.6a*, b*, c*, d*, e*	
118	11.2 Using lenses	Extended*	3.3.6f*, g*	
120	11.3 The eye	Extended*	3.3.6h*, i*, j*	
122	11.4 More about the eye	Extended*	3.3.6h*, i*, j*, k*	
124	Chapter summary questions			
126	12.1 States of matter	Core	3.4.1a	
128	12.2 Specific heat capacity	Core	3.4.1b	
130	12.3 Change of state	Core	3.4.1e	Required practical
132	12.4 Specific latent heat	Extended*	3.4.1c*, d*	
134	Chapter summary questions			
136	13.1 Conduction	Core	3.4.2a	
138	13.2 Convection	Core	3.4.2a	
140	13.3 Evaporation and condensation	Extended*	3.4.2b*	
142	13.4 Infrared radiation	Extended*	3.3.2d*	
144	13.5 More about infrared radiation	Core and Extended*	3.3. d*, e *, f* 3.4.2c, d	

146	13.6 Energy transfer by design	Core	3.4.2c	
148	13.7 Expansion by heating	Core	3.4.2e	
150	Chapter summary questions			
152	14.1 Electrical charges	Core and Extended*	3.5.1a, b*	
154	14.2 Electric circuits	Core	3.5.1c, o	
156	14.3 Potential difference and resistance	Core and Extended*	3.5.1d, e, f*, h, i	
158	14.4 Component characteristics	Extended*	3.5.1j*, k*, l*, m*, n*	Required practical
160	14.5 Series circuits	Core	3.5.1p, q, r	
162	14.6 Parallel circuits	Core	3.5.1s	
164	14.7 Sensor circuits	Core	3.5.1s	
166	Chapter summary questions			
168	15.1 Magnetic fields	Core	3.5.2a, b, c, d	
170	15.2 Electromagnets	Extended*	3.5.2e*, f*, g*	Extended only required practical
172	15.3 The motor effect	Extended*	3.6.4a*, b*	
174	15.4 The generator effect	Extended*	3.6.1a*, b*, c*, d*, e*	
176	15.5 Alternators and dynamos	Extended*	3.6.1f*	
178	15.6 Transformers	Core and Extended*	3.6.2a, b, c*, d	
180	15.7 Transformers in action	Extended*	3.6.2e*, f*, g*	
182	Chapter summary questions			
184	16.1 Alternating current	Core	3.6.3a, b, c	
186	16.2 Cables and plugs	Core	3.6.3d	
188	16.3 Fuses	Core	3.6.3e	
190	16.4 Electrical power and potential difference	Core	3.2.1f 3.6.5a, b, c	
192	16.5 Electrical energy and charge	Extended*	3.6.5d*	
194	16.6 Electrical energy and efficiency	Core	3.6.5e, f	
196	16.7 Electrical issues	Extended*	3.5.1t*	
198	Chapter summary questions			

200	17.1 Atoms and radiation	Core	3.7.1a 3.7.2d	
202	17.2 The discovery of the nucleus	Core	3.7.1b	
204	17.3 Nuclear reactions	Core	3.7.1c, d, e, f 3.7.2 a, b, c, e, f	
206	17.4 More about alpha, beta, and gamma radiation	Core	3.7.2i	
208	17.5 Half-life	Core	3.7.2g, h	
210	17.6 Radioactivity at work	Core	3.7.2j	
212	17.7 Nuclear fission	Extended*	3.7.3a*, b*, c*, d*	
214	17.8 Nuclear fusion	Extended*	3.7.4a*, b*, c*	
216	17.9 Nuclear issues	Extended*	3.7.2j* 3.7.3e*	
218	Chapter summary questions			
220	18.1 The Solar System	Core and Extended*	3.7.4d 3.8.1a, b, c* 3.8.2a	
222	18.2 The life history of a star	Core and Extended*	3.8.1d*, e, f, g, h, i, j	
224	18.3 Planets, satellites, and orbits	Core and Extended*	3.8.2c*, d, e, f, g	
226	The expanding universe	Core and Extended*	3.8.2b 3.8.3a*, b*	
228	The Big Bang	Extended*	3.8.3c*, d*	
230	Chapter summary questions			