

What's new for 2011 Biology

This section of the guide gives you an overview of what material is new, and what material you may be familiar with if you taught Edexcel's 360 Science qualification.

B1		
Lesson	Specification learning outcomes	360 Science specification match
Lesson B1.1 Classification	1.1, 1.2, 1.3	B1a 1.11
Lesson B1.2 Vertebrates and invertebrates	1.4, 1.5	B1a 1.11
Lesson B1.3 Species	1.6, 1.7, 1.8, 1.9, 1.19	B1a 1.11
Lesson B1.4 Variation	1.8, 1.9, 1.10	
Lesson B1.5 Variation practical	1.13, 1.14	B1a 2.6
Lesson B1.6 Reasons for variety	1.11, 1.15, 1.16	
Lesson B1.7 Evolution	1.12, 1.17, 1.18	B1a 1.2, B1a 1.7, B1a 1.10 B2 4.6
Lesson B1.8 Genes	1.20 1.21	B1a 2.1, B1a 2.2, B1a 2.8
Lesson B1.9 Explaining inheritance	1.22, 1.23, 1.24	B1a 2.4, B1a 2.6, B1a 2.8
Lesson B1.10 Genetic disorders	1.25, 1.26	B1a 2.9
Lesson B1.11 Homeostasis	2.1, 2.2, 2.3, 2.4	
Lesson B1.12 Sensitivity	2.19, 2.20, 2.21	B1b 3.1, B1b 3.2, B1b 3.3, B1b 3.5
Lesson B1.13 Skin sensitivity practical	2.22	
Lesson B1.14 Responding to stimuli	2.23	B1b 3.5, B1b 3.6
Lesson B1.15 Hormones	2.5, 2.6, 2.7	B1b 3.8, B1b 3.13, B1b 3.14
Lesson B1.16 Diabetes	2.8, 2.9, 2.10, 2.11, 2.12, 2.13	
Lesson B1.17 Tropic responses practical	2.16	
Lesson B1.18 Plant hormones	2.14, 2.15, 2.17	B2 2.11, B2 2.12
Lesson B1.19 Uses of plant hormones	2.17, 2.18	B2 2.13
Lesson B1.20 Effects of drugs	3.1, 3.2	B1b 4.3, B1b 4.4, B1b 4.5, B1b 4.6, B1b 4.8
Lesson B1.21 Reaction times and drugs practical	3.3	B1b 4.1, B1b 4.2
Lesson B1.22 The damage caused by smoking	3.4, 3.5	B1b 4.1
Lesson B1.23 The effects of alcohol	3.6	B1b 4.1, B1b 4.2
Lesson B1.24 Ethics and transplants	3.7	
Lesson B1.25 Pathogens and infection	3.8, 3.9	B1b 4.9
Lesson B1.26 Antiseptics and antibiotics	3.10, 3.11, 3.12, 3.13, 3.14	B1b 4.10, B1b 4.14

B1		
Lesson	Specification learning outcomes	360 Science specification match
Lesson B1.27 Antiseptics practical	3.15	
Lesson B1.28 Interdependence and food webs	3.16, 3.17, 3.18	B1a 1.1, B1a 1.2, B1a 1.3, B1a 1.4
Lesson B1.29 Parasites and mutualists	3.19	
Lesson B1.30 Pollution	3.20, 3.21, 3.22	B1a 1.5, B2 4.3
Lesson B1.31 Pollutants and plant growth practical	3.23	
Lesson B1.32 Pollution indicators	3.24, 3.25	B2 4.7, B2 4.8
Lesson B1.33 The carbon cycle	3.26	B2 3.7
Lesson B1.34 The nitrogen cycle	3.27	B2 3.8

B2		
Lesson	Specification learning outcomes	360 Science specification match
Lesson B2.1 Plant and animal cells	1.2, 1.3, 1.4	B2 3.1
Lesson B2.2 Inside bacteria	1.1, 1.5	
Lesson B2.3 DNA	1.6, 1.7	B2 1.1, B2 1.2
Lesson B2.4 DNA practical	1.8	
Lesson B2.5 DNA discovery	1.9, 1.10	B1a 2.3
Lesson B2.6 Genetic engineering	1.11, 1.12	B1b 3.14, B3 1.20
Lesson B2.7 Mitosis and meiosis	1.13, 1.14, 1.15, 1.16	B2 2.1, B2 2.2, B2 2.3
Lesson B2.8 Clones	1.17, 1.18, 1.19	B2 2.17
Lesson B2.9 Stem cells	1.19, 1.20, 1.21	B2 2.6, B2 2.8, B2.2.9, B2 2.18
Lesson B2.10 Protein manufacture	1.22, 1.23	B2 1.8, B2 1.9
Lesson B2.11 Mutations	1.24, 1.25	B2 1.8, B2 1.9
Lesson B2.12 Enzymes	1.26, 1.27	
Lesson B2.13 Enzymes practical	1.32	
Lesson B2.14 Enzyme action	1.28, 1.29, 1.30, 1.31	C2 8.8
Lesson B2.15 Aerobic respiration	2.1, 2.2, 2.3, 2.4	B2 1.10, B2 1.11
Lesson B2.16 Aerobic respiration practical	2.5, 2.6	
Lesson B2.17 Anaerobic respiration	2.6, 2.7, 2.8, 2.9, 2.10, 2.11	B2 1.12, B2 1.13, B2 1.16, B2 1.17

B2		
Lesson	Specification learning outcomes	360 Science specification match
Lesson B2.18 Photosynthesis	2.13, 2.14	B2 3.2
Lesson B2.19 Photosynthesis practical	2.16	
Lesson B2.20 Limiting factors	2.15	B2 3.4
Lesson B2.21 Water transport	2.17, 2.18, 2.19, 2.20	
Lesson B2.22 Osmosis practical	2.21	
Lesson B2.23 Organisms and their environments	2.22, 2.23	B1a 1.5
Lesson B2.24 Populations and distributions practical	2.22, 2.23	
Lesson B2.25 Fossils and evolution	3.1, 3.2, 3.3	B1a 1.7, B1a 1.8, B1a 1.9, B1a 1.10
Lesson B2.26 Growth	3.4, 3.5, 3.6, 3.7	B2 2.4
Lesson B2.27 Blood	3.8	
Lesson B2.28 Heart	3.9, 3.10	
Lesson B2.29 Circulatory system	3.9, 3.11	
Lesson B2.30 Digestive system	3.12, 3.13	
Lesson B2.31 Breaking down food	3.14, 3.15	
Lesson B2.32 Villi	3.16	
Lesson B2.33 Digestive enzymes practical	3.17	
Lesson B2.34 Pro- and pre-biotics	3.18	B3 1.1, B3 1.4

B3		
Lesson	Specification learning outcomes	360 Science specification match
Lesson B3.1 Rhythms	1.31, 1.32	
Lesson B3.2 Plant defences	1.29, 1.30	
Lesson B3.3 Bacterial growth practical	1.26, 1.27, 1.28	
Lesson B3.4 Vaccines	1.20, 1.21, 1.22	B1b 4.11, B1b 4.12
Lesson B3.5 Antibodies	1.23, 1.24, 1.25	B1b 4.6
Lesson B3.6 The kidneys	1.1, 1.2, 1.3, 1.4	
Lesson B3.7 Inside the kidneys	1.5, 1.6, 1.7, 1.8	

B3		
Lesson	Specification learning outcomes	360 Science specification match
Lesson B3.8 The menstrual cycle	1.9, 1.10, 1.11, 1.12, 1.13	B1b 3.9, B1b 3.10, B1b 3.11
Lesson B3.9	1.14, 1.5, 1.16	B1b 3.12
Lesson B3.10 Sex determination	1.17, 1.18, 1.19	B3 1.15
Lesson B3.11 Courtship	2.1, 2.2, 2.3, 2.4, 2.5	B3 2.23, B3 2.24, B3 2.25, B3 2.26
Lesson B3.12 Behaviour	2.6, 2.12	B3 2.1, B3 2.2, B3 2.3, B3 2.4, B3 2.5, B3 2.27
Lesson B3.13 Behaviour practical	2.6, 2.8	
Lesson B3.14 Learned behaviour	2.6, 2.7	B3 2.1, B3 2.2, B3 2.3, B3 2.4, B3 2.5
Lesson B3.15 Animal communication	2.9, 2.10, 2.12	B3 2.6, B3 2.7, B3 2.8, B3 2.9
Lesson B3.16 Plant behaviour	2.11, 2.13	
Lesson B3.17 Human evolution	2.14, 2.15	
Lesson B3.18 Human evolution and behaviour	2.14, 2.16, 2.17, 2.18	
Lesson B3.19 Biotechnology	3.1, 3.2, 3.3	B2 1.4, B2 1.5
Lesson B3.20 Yeast growth practical	3.4	
Lesson B3.21 Microorganisms for food	3.5, 3.6, 3.7	B2 1.6
Lesson B3.22 Yoghurt practical	3.8, 3.9	B3 1.1
Lesson B3.23 Enzyme technology	3.10, 3.13	B3 1.6, B3 1.5, B3 1.20
Lesson B3.24 Lactase practical	3.11	
Lesson B3.25 Pectinase practical	3.12	
Lesson B3.26 Global food security	3.14, 3.18, 3.19	B3 1.10, B3 1.9, C1b 7.14
Lesson B3.27 A GM future?	3.15, 3.16, 3.17, 3.18	B3 1.10, B3 1.11, B3 1.12, B3 1.13

What's new for 2011 Chemistry

C1		
Lesson	Specification learning outcomes	360 Science specification match
Lesson C1.1 The early atmosphere	1.1, 1.2, 1.3, 1.4	C1b 7.4
Lesson C1.2 A changing atmosphere	1.5, 1.6	C1b 7.4
Lesson C1.3 Oxygen in the atmosphere practical	1.7	
Lesson C1.4 The atmosphere today	1.8, 1.9, 0.1	C1b 7.3
Lesson C1.5 Rocks and their formation	2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7	
Lesson C1.6 Limestone and its uses	2.8, 2.9, 2.10	C1a 6.12
Lesson C1.7 Thermal decomposition of carbonates practical	2.11	
Lesson C1.8 Chemical reactions	2.12, 2.13, 2.16, 0.2, 0.3, 0.4	C1a 6.11
Lesson C1.9 Reactions of calcium compounds	2.14, 2.15, 2.17, 2.18, 0.4	
Lesson C1.10 Indigestion	3.1, 3.2, 0.1, 0.2, 0.3	
Lesson C1.11 Indigestion remedies practical	3.3	
Lesson C1.12 More neutralisation	3.4, 3.5	C1a 6.2
Lesson C1.13 Electrolysis practical	3.6, 3.7, 3.8, 3.9	C1a 6.16
Lesson C1.14 The importance of chlorine	3.10, 3.11, 3.12, 0.5	C1b 7.23
Lesson C1.15 Electrolysis of water	3.13, 3.14	C2 6.12, C1a 6.16
Lesson C1.16 Ores	4.1, 4.2, 4.3	C1a 6.4, C1a 6.5, C1a 6.8, C1a 6.9
Lesson C1.17 Metal extraction practical	4.4	
Lesson C1.18 Oxidation and reduction	4.5, 4.6, 4.7, 4.8	C1a 6.6, C1a 6.7
Lesson C1.19 Recycling metals	4.9	C1b 7.7
Lesson C1.20 Properties of metals	4.10	C1a 5.4
Lesson C1.21 Alloys	4.11, 4.12, 4.13, 4.14	C2 6.2
Lesson C1.22 Crude oil	5.1, 5.2	C1b 7.15
Lesson C1.23 Crude oil fractions	5.3, 5.4, 5.5	C1b 7.16, C1b 7.17
Lesson C1.24 Combustion	5.6, 5.7	C1b 7.2, C1a 6.16
Lesson C1.25 Incomplete combustion	5.8, 5.9, 5.10	C1b 7.18, C1b 7.19, C1b 7.20

C1		
Lesson	Specification learning outcomes	360 Science specification match
Lesson C1.26 Acid rain	5.11, 5.12	
Lesson C1.27 Climate change	5.13, 5.14, 5.15, 5.16	C1b 7.2, C1b 7.3, C1b 7.4, C1b 7.5, C1b 7.6
Lesson C1.28 Biofuels	5.17, 5.18, 5.19	C1b 7.12, C1b 7.14
Lesson C1.29 Choosing fuels	5.20, 5.21, 5.22, 5.23	C1b 7.11
Lesson C1.30 Fuels practical	5.24	
Lesson C1.31 Alkanes and alkenes	5.25, 5.26, 5.27, 5.28, 5.29	C2 5.4, C2 5.5, C2 5.6, C2 5.8
Lesson C1.32 Cracking	5.30, 5.31, 5.32	C2 5.1, C2 5.2
Lesson C1.33 Polymerisation	5.33, 5.34, 5.35	C2 5.14, C2 5.15, C2 5.16
Lesson C1.34 Problems with polymers	5.36, 5.37	C2 5.20

C2		
Lesson	Specification learning outcomes	360 Science specification match
Lesson C2.1 Mendeleev	1.1, 1.2	C1a 5.5, C1a 5.6, C1a 5.7, C1a 5.8, C1a 5.9, C1a 5.11, C1a 5.12
Lesson C2.2 Structure of the atom	1.3, 1.4, 1.5, 1.6, 1.7	C1a 5.10, C1a 5.13, C2 6.3
Lesson C2.3 The modern periodic table	1.2, 1.8, 1.9, 1.10, 1.11	C1a 5.9, C2 6.4, C2 6.13, C2 6.14
Lesson C2.4 Electron shells	1.12, 1.13	C2 6.5
Lesson C2.5 Ionic bonds	2.1, 2.2, 2.3, 2.4	C2 6.6, C2 6.7, C2 6.8
Lesson C2.6 Ionic compounds	2.5, 2.6, 2.7	C2 6.9, C2 6.10
Lesson C2.7 Properties of ionic compounds	2.8	C2 6.9
Lesson C2.8 Solubility	2.9, 2.10	C1a 6.1, C1a 6.2, C1a 6.3
Lesson C2.9 Precipitation practical	2.11, 2.12, 0.2, 0.3, 0.4	C1a 6.3
Lesson C2.10 Precipitates	2.13, 2.14, 0.2, 0.3	
Lesson C2.11 Ion tests	2.15, 2.16	C1a 5.1, C1a 5.4, C3 3.6
Lesson C2.12 Covalent bonds	3.1, 3.2, 3.3	C2 7.9, C2 7.10
Lesson C2.13 Comparing chemicals practical	3.4, 0.5	
Lesson C2.14 Properties of covalent substances	3.5, 3.6, 3.7	C2 7.4, C2 7.11

C2		
Lesson	Specification learning outcomes	360 Science specification match
Lesson C2.15 Immiscible and miscible liquids	3.8, 3.9	C1b 7.22
Lesson C2.16 Chromatography	3.10, 3.11	
Lesson C2.17 Chemical classification	4.5	C2 6.9, C2 7.4, C2 7.7, C2 7.9
Lesson C2.18 Metallic bonding and transition metals	4.1, 4.2, 4.3, 4.4	C1a 5.17, C1a 5.18, C1a 5.19, C1a 5.20, C1a 5.21, C1a 5.3, C1a 5.4, C1a 5.7, C1a 5.8, C2 7.7,
Lesson C2.19 Alkali metals	4.1, 4.6, 4.7, 4.8	C2 6.19
Lesson C2.20 Halogens	4.1, 4.9, 4.10	C1a 5.18, C1a 5.19, C2 6.19
Lesson C2.21 Displacement reactions practical	4.12	
Lesson C2.22 Displacement reactions	4.11, 4.13	C1a 5.19
Lesson C2.23 Noble gases	4.1, 4.14, 4.15, 4.16, 4.17	C1a 5.7, C2 6.17
Lesson C2.24 Temperature changes practical	5.1	
Lesson C2.25 Temperature changes	5.2, 5.3, 5.4, 5.5, 5.6	C2 8.1, C2 8.2, C2 8.3
Lesson C2.26 Rates of reaction practical	5.7	
Lesson C2.27 Rates of reactions	5.8, 5.9	C2 8.4, C2 8.5
Lesson C2.28 Kinetic theory	5.10, 5.11	C2 8.7
Lesson C2.29 Catalysts	5.12, 5.13	C2 8.6
Lesson C2.30 Relative masses	6.1, 6.2	C2 2.5, C2 2.6
Lesson C2.31 Empirical formula practical	6.3	
Lesson C2.32 Percentage composition	6.4, 6.5	C2 5.27
Lesson C2.33 Yields	6.6, 6.7, 6.8, 6.9	C2 5.28
Lesson C2.34 Industrial yields	6.10, 6.11	

C3		
Lesson	Specification learning outcomes	360 Science specification match
Lesson C3.1 Water testing	1.1, 1.2, 1.3, 0.4	C3 3.1, C3 3.2, C3 3.3, C3 3.4, C3 3.5, C3 3.6
Lesson C3.2 Safe water	1.3, 0.4	C3 3.1, C3 3.2, C3 3.3, C3 3.4, C3 3.5, C3 3.6
Lesson C3.3 Ion identification	1.4	
Lesson C3.4 Safe limits	1.5	
Lesson C3.5 Water solutes	2.1, 2.2, 2.3	C3 3.7, C3 3.8, C3 4.18
Lesson C3.6 Hard and soft water	2.4, 2.5	C3 4.18
Lesson C3.7 Determining dry mass practical	2.6	
Lesson C3.8 Particles and moles	2.7, 2.8, 2.9	C3 3.7, C3 3.8, C3 3.16
Lesson C3.9 Preparing soluble salts 1	2.10	C1a 6.1, C1a 6.2
Lesson C3.10 Preparing soluble salts 2	2.11, 2.12	C3 3.17
Lesson C3.11 Titration	2.13, 2.14	C3 3.18
Lesson C3.12 Titrations and circulations	2.15	C3 3.19
Lesson C3.13 Electrolysis	3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7	C3 4.5, C3 4.6
Lesson C3.14 Electrolysis of brine practical	3.8	
Lesson C3.15 Electrolysis of salts	3.9, 3.10, 3.11	C3 4.5, C3 4.6
Lesson C3.16 Mass changes in electrolysis	3.12	
Lesson C3.17 Uses of electrolysis	3.13, 3.14	C3 4.7
Lesson C3.18 Molar volumes	4.1, 4.2, 4.3	C3 3.11, C3 3.12, C3 3.15
Lesson C3.19 Fertilisers	4.4, 4.5, 4.6	B2 3.11, C2 8.9, C2 8.13, C2 8.14
Lesson C3.20 The Haber process	4.7, 4.8, 4.9, 4.10	C2 8.10, C2 8.11, C2 8.12
Lesson C3.21 Fermentation	5.1, 5.2	C1b 8.8
Lesson C3.22 Ethanol drinks	5.3, 5.4, 5.5	C1b 8.9
Lesson C3.23 Ethanol production	5.6, 5.7, 5.8	C2 5.13
Lesson C3.24 Homologous series	5.9, 5.10	C3 4.3
Lesson C3.25 Ethanoic acid	5.10, 5.11, 5.12, 5.13	C3 4.3, C3 4.4
Lesson C3.26 Esters	5.14, 5.15, 5.16	C3 4.3, C3 4.4
Lesson C3.27 Fats, oils and soap	5.17, 5.18, 5.19, 5.20	C3 4.15, C3 4.16, C3 4.17, C3 4.18, C2 5.10, C2 5.11, C2 5.12

What's new for 2011 Physics

P1		
Lesson	Specification learning outcomes	360 Science specification match
Lesson P1.1 The Solar System	1.1, 1.2, 1.3, 1.4	P1b 12.8
Lesson P1.2 Refracting telescopes	1.10, 1.11, 1.5, 1.8	
Lesson P1.3 Lenses practical	1.6, 1.7	
Lesson P1.4 Reflecting telescopes	1.8, 1.9, 1.10	
Lesson P1.5 Waves	1.12, 1.13, 1.14, 1.15, 0.1, 0.2, 0.3	P1b 11.14, P1b 11.15, P1b 11.16
Lesson P1.6 Beyond the visible	2.1, 2.2	P1b 11.12
Lesson P1.7 The electromagnetic spectrum	2.2, 2.3, 2.4	P1b 11.18, P1b 11.19
Lesson P1.8 Electromagnetic dangers	2.5, 2.6	P1b 11.1, P1b 11.2, P1b 11.3
Lesson P1.9 Using electromagnetic radiation	2.7	P1b 11.3, P1b 11.6, P1b 11.8
Lesson P1.10 Ionising radiation	2.8, 2.9	P2 11.4
Lesson P1.11 The Universe	3.1, 3.2, 3.3, 3.4	P1b 12.15, P1b 12.16
Lesson P1.12 Spectrometers practical	3.8	
Lesson P1.13 Exploring the Universe	3.5, 3.7, 3.9, 3.10	P1b 12.8
Lesson P1.14 Alien life?	3.6	P1b 12.8, P1b 12.17
Lesson P1.15 Life-cycles of stars	3.11, 3.12, 3.13	P1b 12.12
Lesson P1.16 Theories about the Universe	3.14, 3.15, 3.16	P1b 12.19
Lesson P1.17 Red-shift	3.17, 3.18, 3.19, 3.20, 3.21, 3.22	P1b 12.19
Lesson P1.18 Infrasound	4.4, 4.5, 1.15	
Lesson P1.19 Ultrasound	4.1, 4.2, 4.3, 1.15	P1b 11.5
Lesson P1.20 Seismic waves	4.6, 4.9, 4.11	P1b 11.12
Lesson P1.21 Earthquakes practical	4.7	
Lesson P1.22 Detecting earthquakes	4.8, 4.10, 4.12, 4.13	P1b 11.13
Lesson P1.23 Renewable energy resources	5.1, 5.5	P1a 9.8, P1a 9.2, P1a 10.1, P1a 10.2
Lesson P1.24 Non-renewable resources	5.5	P1a 10.1, P1a 10.2
Lesson P1.25 Investigating generators practical	5.7	
Lesson P1.26 Generating electricity	5.6, 5.8, 5.9, 5.10	P1a 9.4, P1a 9.1, P1a 9.2, P1a 9.3

P1		
Lesson	Specification learning outcomes	360 Science specification match
Lesson P1.27 Transmitting electricity	5.11, 5.12, 5.13, 5.14, 5.15	
Lesson P1.28 Paying for electricity	5.2, 5.3, 5.16, 5.17, 5.21, 0.1, 0.2, 0.3	P1a 10.5, P1a 10.6
Lesson P1.29 Power consumption practical	5.4	
Lesson P1.30 Reducing energy use	5.18, 5.19, 5.20	P1a 10.9, P1a 10.10
Lesson P1.31 Energy transfers	6.1, 6.2, 6.3	
Lesson P1.32 Efficiency	6.4, 6.5	P1a 10.7
Lesson P1.33 Heat radiation practical	6.7	
Lesson P1.34 The Earth's temperature	6.6	

P2		
Lesson	Specification learning outcomes	360 Science specification match
Lesson P2.1 Static electricity	1.1, 1.2, 1.3, 1.4, 1.5	P2 12.14, P2 12.15, P2 12.16
Lesson P2.2 Uses and dangers	1.5, 1.6, 1.7, 1.8	P2 12.14, P2 12.15, P2 12.16, P2 12.17
Lesson P2.3 Electric currents	1.9, 1.10, 1.11, 1.12, 1.13	P1a 9.8
Lesson P2.4 Current and voltage	2.1, 2.2, 2.3, 2.4, 2.5	P1a 9.9
Lesson P2.5 Investigating resistance practical	2.6	
Lesson P2.6 Changing resistances	2.7, 2.8, 2.9, 2.10, 2.11	P1a 9.10, P1a 9.11, P1a 9.6
Lesson P2.7 Transferring energy	2.12, 2.13, 2.14, 2.15, 2.16, 0.1, 0.2, 0.3	P2 10.5, P2 10.4
Lesson P2.8 Vectors and velocity	3.1, 3.2, 3.3, 3.4, 0.1, 0.2, 0.3	P2 9.1, P2 9.2, P2 9.4
Lesson P2.9 Acceleration	3.1, 3.5	P2 9.2, P2 9.5
Lesson P2.10 Velocity-time graphs	3.6, 0.1, 0.2, 0.3	P2 9.2, P2 9.3, P2 9.5
Lesson P2.11 Forces	3.7, 3.8	P2 9.11, P2 9.10
Lesson P2.12 Resultant forces	3.9, 3.10, 3.11	P2 9.8, P2 9.9, P2 9.10, P2 9.6, P2 9.7
Lesson P2.13 Forces and acceleration	3.12, 3.13, 0.1, 0.2, 0.3	P2 9.8, P2 9.9, P1b 12.3, P1b 12.4
Lesson 2.14 Investigating the relationship between force, mass and acceleration practical	3.15	
Lesson P2.15 Terminal velocity	3.14, 3.16, 3.17, 0.1, 0.2, 0.3	P1b 12.1, P2 9.13, P2 9.14

P2		
Lesson	Specification learning outcomes	360 Science specification match
Lesson P2.16 Stopping distances	4.1, 4.2	P2 9.15, P2 9.16
Lesson P2.17 Friction practical	4.3	
Lesson P2.18 Momentum	4.4, 4.5, 4.6, 0.1, 0.2, 0.3	P2 9.17
Lesson P2.19 Investigating crumple zones practical	4.8	
Lesson P2.20 Momentum and safety	4.7, 4.9, 0.1, 0.2, 0.3	P2 9.18, P2 9.19
Lesson P2.21 Work and power	4.10, 4.11, 4.12, 4.13, 4.14, 4.18, 0.1, 0.2, 0.3	P2 10.4, P2 10.5, P2 10.2
Lesson P2.22 Potential & kinetic energy	4.15, 4.16, 4.17, 4.18, 0.1, 0.2, 0.3	P2 10.1, P2 10.7
Lesson P2.23 Isotopes	5.1	P2 11.5
Lesson P2.24 Ionising radiation	5.2, 5.3, 5.4, 5.5	P2 11.4, P2 11.7
Lesson P2.25 Nuclear reactions	5.6, 5.7, 5.8	P2 12.2, P2 12.4
Lesson P2.26 Nuclear power	5.9, 5.10, 5.11	P2 12.6, P2 12.9
Lesson P2.27 Fusion – our future?	5.12, 5.13, 5.14, 5.15, 5.16	P2 12.11, P2 12.12, P2 12.13
Lesson P2.28 Changing ideas	6.9, 6.10	P2 11.2
Lesson P2.29 Nuclear waste	6.11, 6.12	P2 12.10, P2 12.7
Lesson P2.30 Half-life	6.4, 6.5, 6.6, 6.7	P2 11.8, P2 11.9, P2 11.10
Lesson P2.31 Radioactive decay practical	6.8	
Lesson P2.32 Background radiation	6.1, 6.2	P2 11.13, P2 11.14
Lesson P2.33 Uses of radiation	6.3	P2 11.1, P2 11.3

P3		
Lesson	Specification learning outcomes	360 Science specification match
Lesson P3.1 Radiation in medicine	1.1, 1.2, 1.3, 1.4, 0.1, 0.2, 0.3	P3 6.1, P3 6.2, P3 6.3, P3 6.4, P1b 11.5
Lesson P3.2 How eyes work	1.10, 1.11, 1.12	B1b 3.5, B1b 3.6
Lesson P3.3 Sight problems	1.13, 1.14	
Lesson P3.4 Investigating lenses practical	1.8	
Lesson P3.5 Converging lenses	1.5, 1.6, 1.7, 1.9, 0.1, 0.2, 0.3	
Lesson P3.6 Reflection and refraction	1.15, 1.16, 1.17	P3 6.3

P3		
Lesson	Specification learning outcomes	360 Science specification match
Lesson P3.7 Total internal reflection practical	1.18	
Lesson P3.8 Critical angles practical	1.19	
Lesson P3.9 Critical angles	1.15, 1.16	P3 6.3
Lesson P3.10 Using reflection and refraction	1.20, 1.21, 1.22	P3 6.3, P3 6.4, P1b11.5
Lesson P3.11 X-rays	2.1, 2.2, 2.3, 2.4, 2.5	P3 5.27, P3 5.28, P3 5.29, P3 5.30, P3 5.32, P3 5.33
Lesson P3.12 Using X-rays	2.6, 2.7, 2.8, 2.9	P3 5.32
Lesson P3.13 ECGs and pulse oximetry	2.10, 2.11, 2.12, 2.13, 2.14, 0.1, 0.2, 0.3	P3 6.10, P3 6.11, P3 6.12, P3 6.13, P3 6.5
Lesson P3.14 Beta radiation	3.2, 3.3, 3.4, 3.5, 3.6, 3.7	P3 5.8, P3 5.9, P3 5.15
Lesson P3.15 Alpha and gamma radiation	3.19, 3.2, 3.7, 3.8	P3 5.15, P3 5.8, P3 5.9
Lesson P3.16 The stability curve	3.9, 3.10, 3.11, 3.12, 3.13	P3 5.10, P3 5.11, P3 5.12, P3 5.13, P3 5.14, P3 5.15, P3 5.16, P3 5.18
Lesson P3.17 Quarks	3.14, 3.15, 3.16, 3.17, 3.18	P3 5.23, P3 5.24, P3 5.25, P3 5.26
Lesson P3.18 Dangers of ionising radiation	3.19, 3.20, 3.21	P3 5.17, P2 11.12, P2 11.15, P3 6.22
Lesson P3.19 Radiation treatments	3.1, 3.22, 3.23, 3.24, 3.25	P3 6.25, P3 6.21, P3 6.22, P3 6.23, P3 6.24
Lesson P3.20 Collaboration and circular motion	4.1, 4.2, 4.3	P3 5.31, P3 5.32, P2 10.9, P2 10.10, P2 10.11
Lesson P3.21 Collisions practical	4.12	
Lesson P3.22 Collisions	4.7, 4.8, 4.9, 4.10, 4.11	P3 6.17
Lesson P3.23 PET scanners	4.13, 4.14, 4.15, 4.16	P3 6.19, P3 6.20
Lesson P3.24 Kinetic theory	5.1, 5.2, 5.3, 5.4, 5.5, 5.6	P3 5.1, P3 5.2, P3 5.3, P3 5.4
Lesson P3.25 Investigating temperature and volume practical	5.7	
Lesson P3.26 Investigating volume and pressure practical	5.9	
Lesson P3.27 Calculating volumes and pressures	5.8, 5.10, 5.11, 5.12, 0.1, 0.2, 0.3	P3 5.6, P3 5.7