

Combined Science

Major focus topic area	Websites – content and required practical	Large revision guide page numbers	Small revision guide page numbers
<p><u>Physics Paper 1 Higher</u></p> <p>PU1 Energy: Spec ref: 6.1.1 Energy changes in a system</p> <p>Energy stores and systems</p> <p>Kinetic energy and potential energy stores</p> <p>Conservation and dissipation of energy</p> <p>Required practical 14: An investigation to determine the SHC of one or more materials</p>	<p>https://www.bbc.co.uk/bitesize/guides/zskp7p3/revision/1</p> <p>Cognito: GCSE Physics - Energy Stores, Transferring Energy & Work Done #1 - Bing video</p> <p>Energy transfers - Changes in energy stores - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize</p> <p>Calculation of energy changes - Changes in energy stores - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize</p> <p>The conservation of energy - Changes in energy stores - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize</p> <p>Require practical: Free science lessons video:</p> <p>GCSE Science Revision Physics "Required Practical 1: Specific Heat Capacity" - Bing video</p>	<p>Pg 167</p> <p>Pg 168</p> <p>Pg 170</p> <p>Pg 169</p>	<p>Pg 76</p> <p>Pg 77</p> <p>Pg 115</p> <p>Pg 115</p>

<p>PU2 Electricity: Spec ref: 6.2.4 Energy Transfers</p> <p>Power of electrical appliances</p> <p>More on Power</p> <p>National grid</p> <p>Required practical 16 (but number 4 on free science lessons) Use circuit diagrams to construct appropriate circuits to investigate a variety of circuit elements</p>	<p>Components: Electrical circuit symbols - Electric circuits - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize</p> <p>Energy and power in electric circuits - Electric circuits - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize</p> <p>Electrical appliances - Mains electricity and alternating current - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize</p> <p>Alternating current and the National Grid - Mains electricity and alternating current - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize</p> <p><u>Required practical Bitesize and Free science lessons</u></p> <p>Required practical - investigate current - voltage graphs - Electric circuits - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize</p> <p>GCSE Science Revision Physics "Required Practical 4: Current / PD Characteristics" - Bing video</p>	<p>Pg 179</p> <p>Pg 187</p> <p>Pg 188</p> <p>Pg 189</p> <p>Pg 181</p>	<p>Pg 87</p> <p>Pg 83/84</p>
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<p>PU3 Particle Model of Matter: Spe ref: 6.3.1 Changes of state and the particle model and 6.3.3 Particle model and pressure</p> <p>The particle model and motion in gases</p> <p>Density of Materials (not the required practical for determining density of regular or irregular objects)</p> <p>Internal energy and changes of state</p>	<p>Particle motion - Particles in gases - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize</p> <p>Density - Density of materials - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize</p> <p>Cognito: GCSE Physics - Density #26 - Bing video</p> <p>States of matter - Temperature change and energy - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize</p> <p>Cognito: GCSE Physics - Internal Energy and Specific Heat Capacity #27 - Bing video</p>	<p>Pg 191</p> <p>Pg 192</p> <p>Pg 193</p>	<p>Pg 88</p> <p>Pg 89</p> <p>Pg 89</p>
<p>PU4: Atomic Structure: Spec ref: 6.4.1 atoms and isotopes</p> <p>Developing the model of the atom</p>	<p>Developing the atom - Models of the atom - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize</p> <p>Structure of the atom - Atoms, isotopes and ions - AQA -</p>	<p>Pg 195</p>	<p>Pg 91</p>

<p>Isotopes and nuclear radiation</p> <p>Spec ref: 6.4.2: Atoms and nuclear radiation</p> <p>Nuclear Equations</p> <p>Half life</p> <p>Irradiation and contamination</p>	<p>GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize</p> <p>Nuclear equations - Radioactive decay - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize</p> <p>Half life - Radioactive decay - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize</p> <p>Irradiation - Uses and dangers of radiation - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize</p> <p>Contamination - Uses and dangers of radiation - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize</p>	<p>Pg 196</p> <p>Pg 197</p> <p>Pg 198</p> <p>Pg 199</p>	<p>Pg 92</p> <p>Pg 93</p> <p>Pg 93</p> <p>Pg 94</p>
<p><u>Combined Physics Paper 2 Higher</u></p> <p><u>PU5: Forces:</u> Spec ref: 6.5.1 Forces and their interactions</p> <p>Contact and non-contact forces</p> <p>Weight, Mass and Gravity</p>	<p>Cognito - GCSE Physics - Contact and Non-Contact Forces #40 - Bing video</p> <p>Contact forces - Contact and non-contact forces - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize</p> <p>Scalar quantities - Scalar and vector quantities - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize</p> <p>Gravitational fields - Gravity - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize</p>	<p>Pg 201</p> <p>Pg 202</p>	<p>Pg 95</p> <p>Pg 96</p>

Resultant forces and work done	Calculations involving forces - Scalar and vector quantities - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize	Pg 204/204	Pg 96
6.5.4.1 Describing motion along a line			
Distance, displacement, speed, velocity	Motion in a straight line - Describing motion - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize – all pages in this section	Pg 207	Pg 98
Acceleration		Pg 208	Pg 98
Distance-time and velocity- time graphs	Cognito- GCSE Physics - Distance-Time Graphs #53 - Bing video GCSE Physics - Velocity Time Graphs #54 - Bing video	Pg 209	Pg 99
6.5.4.2 Forces, accelerations and Newton's laws of motion			
Newton's 1 st and 2 nd Laws	Newton's First Law - Forces, acceleration and Newton's laws - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize Newton's Second Law - Forces, acceleration and Newton's laws - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize	Pg 211	Pg 100
Inertia and Newton's 3 rd Law	Newton's Third Law - Forces, acceleration and Newton's laws - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize	Pg 212	Pg 100
6.5.5 Momentum Momentum	What is momentum? - Higher - Momentum - Higher - AQA - GCSE Combined Science Revision - AQA Trilogy	Pg 216	-

	- BBC Bitesize		
<p><u>PU6 Waves</u> Spec ref: 6.6.2 Electromagnetic Waves</p> <p>Wave behaviour and electromagnetic waves</p> <p>Radiowaves</p> <p>EM waves and their uses</p> <p>More uses of EM waves</p> <p>Required practical 21: Investigating how the amount of IR radiation absorbed or radiated by a surface depends on the nature of the surface.</p>	<p>Cognito – GCSE Physics - Electromagnetic Waves #64 - Bing video</p> <p>Longitudinal waves - Transverse and longitudinal waves - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize – all pages in this section cover this part of the spec</p> <p>GCSE Science Revision Physics "Electromagnetic Waves" - Bing video</p> <p>Required practical: Free science lesson GCSE Science Revision Physics "Required Practical 10: Infrared" - Bing video</p>	<p>Pg 220</p> <p>Pg 222</p> <p>Pg 223</p> <p>Pg 224</p> <p>Pg 225</p>	<p>Pg 100-105</p>
<p><u>PU7 Magnetism and electromagnetism</u></p> <p>6.7.2: The motor effect Electromagnetism</p> <p>The motor effect</p>	<p>What is an electromagnet? - Electromagnets and transformers - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize</p> <p>The motor effect - Higher - Electromagnets and transformers - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize</p>	<p>Pg 228</p> <p>Pg 229</p>	<p>Pg 106</p> <p>Pg 107</p>

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Non-Examined content

Content not examined in paper 1	Revision guide pages to ignore
• 6.2.2 Series and parallel circuits	183-184
• 6.2.3 Domestic uses and safety	186
• 6.3.2 Internal energy and energy transfers	193

Content not examined in paper 2	Revision guide pages to ignore
• 6.5.3 Forces and elasticity	206
• 6.5.4.3 Forces and braking	214
• 6.7.1 Permanent and induced magnetism, magnetic forces and fields	227