## **Combined Science**

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

6.1.3 National grid and global energy resources, Non-renewable resources	National and global energy demands and resources - Energy demands - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize	Pg 173-177	Pg 79-81
PU2 Electricity: Spec ref: 6.2.1 Current,			
potential difference and resistance Current and circuit symbols	Components: <u>Electrical circuit symbols - Electric circuits -</u> <u>AQA - GCSE Combined Science Revision - AQA Trilogy</u>	Pg 179	Pg 82
Resistance and V=IR	- BBC Bitesize	Pg 180	Pg 83/84
Resistance and I-V characteristics	<u>Electrical circuit symbols - Electric circuits - AQA - GCSE</u> <u>Combined Science Revision - AQA Trilogy - BBC</u> <u>Bitesize</u> – pages 1-3 (not the resistance required practical)	Pg 181	Pg 84
Required practical 16 (but number 4 on free science lessons) Use circuit diagrams to construct appropriate circuits to investigate a variety of circuit elements (Not the resistance of a wire required practical)	Required practical Bitesize and Free science lessons Required practical - investigate current - voltage graphs - Electric circuits - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize GCSE Science Revision Physics "Required Practical 4: Current / PD Characteristics" - Bing video	Pg 181	

PU3 Particle Model of Matter: Spec ref:   6.3.1 Changes of state and the particle model and 6.3.3 Particle model and pressure The particle model and motion in gases   The particle model and motion in gases Density of Materials (not the required practical for determining density of regular or irregular objects)   Internal energy and changes of state	Particle motion - Particles in gases - AQA - GCSE   Combined Science Revision - AQA Trilogy - BBC   Bitesize   Density - Density of materials - AQA - GCSE Combined   Science Revision - AQA Trilogy - BBC Bitesize   Cognito: GCSE Physics - Density #26 - Bing video   States of matter - Temperature change and energy -   AQA - GCSE Combined Science Revision - AQA Trilogy   - BBC Bitesize   Cognito: GCSE Physics - Internal Energy and Specific   Heat Capacity #27 - Bing video	Pg 191 Pg 192 Pg 193	Pg 88 Pg 89 Pg 89
PU4: Atomic Structure: Spec ref: 6.4.2: Atoms and nuclear radiation Nuclear Equations	Nuclear equations - Radioactive decay - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize	Pg 197	Pg 93

Half life	Half life - Radioactive decay - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize	Pg 198	Pg 93
Irradiation and contamination	Irradiation - Uses and dangers of radiation - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize Contamination - Uses and dangers of radiation - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC	Pg 199	Pg 94
	Bitesize		
Combined Physics Paper 2 Foundation PU5: Forces: Spec ref: 6.5.1 Forces and their interactions Contact and non-contact forces	Cognito - <u>GCSE Physics - Contact and Non-Contact</u> Forces #40 - Bing video Contact forces - Contact and non-contact forces - AQA - <u>GCSE Combined Science Revision - AQA Trilogy - BBC</u> <u>Bitesize</u> Scalar quantities - Scalar and vector quantities - AQA - <u>GCSE Combined Science Revision - AQA Trilogy - BBC</u> <u>Bitesize</u>	Pg 201	Pg 95
Weight, Mass and Gravity	<u>Gravitational fields - Gravity - AQA - GCSE Combined</u> <u>Science Revision - AQA Trilogy - BBC Bitesize</u>	Pg 202	Pg 96
Resultant forces and work done	Calculations involving forces - Scalar and vector quantities - AQA - GCSE Combined Science Revision -	Pg 203/204	Pg 96
6.5.4.1 Describing motion along a line	AQA Trilogy - BBC Bitesize	Pg 207	
Distance, displacement, speed, velocity		Pg 207	Pg 98
Acceleration		F Y 200	ry ao

Distance-time and velocity- time graphs	Motion in a straight line - Describing motion - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize - all pages in this sectionCognito- GCSE Physics - Distance-Time Graphs #53 - Bing video GCSE Physics - Velocity Time Graphs #54 - Bing video	Pg 209	Pg 98 Pg 99
6.5.4.2 Forces, accelerations and Newton's laws of motion			Pg 100
Newton's 1 <sup>st</sup> and 2 <sup>nd</sup> 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	rgiou
Inertia and Newton's 3 <sup>rd</sup> Law		Pg 212	Pg 100
	Newton's Third Law - Forces, acceleration and Newton's laws - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize		
Stopping distances	Thogy - bbc bitesize	Pg 214	Pg 102
Reaction times	Forces and braking - Forces, acceleration and Newton's laws - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize	Pg 215	Pg 101

PU6 Waves			
Spec ref: 6.6.2 Electromagnetic Waves	Cognito – <u>GCSE Physics - Electromagnetic Waves #64</u> - Bing video		
Wave behaviour and electromagnetic waves		Pg 220	Pg 100-105
Radiowaves	Longitudinal waves - Transverse and longitudinal waves - AQA - GCSE Combined Science Revision - AQA	Pg 222	
EM waves and their uses	Trilogy - BBC Bitesize – all pages in this section cover this part of the spec	Pg 223	
	this part of the spec	F Y 223	
More uses of EM waves	GCSE Science Revision Physics "Electromagnetic Waves" - Bing video	Pg 224	
Required practical 21: Investigating how the amount of IR radiation absorbed or radiated by a surface depends on the nature of the surface.	Required practical: Free science lesson GCSE Science Revision Physics "Required Practical 10: Infrared" - Bing video	Pg 225	
Dangers of EM waves	<u>Hazards of electromagnetic radiation - The</u> <u>electromagnetic (EM) spectrum - GCSE Physics (Single</u> Science) Revision - BBC Bitesize	Pg 226	
<b>PU7 Magnetism and electromagnetism</b> 6.7.1 Permanent and induced magnetism, magnetic forces and fields	Poles of a magnet - Magnetic fields - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize	Pg 227	Pg 106
6.7.2: The motor effect Electromagnetism	What is an electromagnet? - Electromagnets and transformers - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize	Pg 228	Pg 106/107
The motor effect		Pg 229/230	

The motor effect - Higher - Electromagnets and	
transformers - AQA - GCSE Combined Science Revision	-
- AQA Trilogy - BBC Bitesize	

## Non-Examined content

Content not examined in paper 1	Revision guide pages to ignore
6.2.3 Domestic uses and safety	186
• 6.3.3 Particle model and pressure	191
• 6.4.1 Atoms and isotopes	195-196

Content not examined in paper 2	Revision guide pages to ignore
6.5.3 Forces and elasticity	206