Separate Science

Major focus topic area	Websites – content and required practical	Large revision guide page numbers
Physics Paper 1 Higher **PU1 Energy**: Spec ref: 6.1.1 Energy changes in a system Energy stores and systems Kinetic energy and potential energy stores Conservation of energy and power (Spec ref 4.1.2 Conservation and dissipation of energy) **Required practical 2:** Investigate the effectiveness of different materials as thermal insulators and the factors that may affect the thermal insulation properties of a material.	https://www.bbc.co.uk/bitesize/guides/zskp7p3/revision/1 **Cognito:** GCSE Physics - Energy Stores, Transferring Energy & Work Done #1 - Bing video Energy transfers - Changes in energy stores - AQA - GCSE Physics (Single Science) Revision - AQA - BBC Bitesize Calculation of energy changes - Changes in energy stores - AQA - GCSE Physics (Single Science) Revision - AQA - BBC Bitesize Energy dissipation - Changes in energy stores - AQA - GCSE Physics (Single Science) Revision - AQA - BBC Bitesize **Require practical: Free science lessons video**: GCSE Science Revision Physics "Required Practical 2: Thermal Insulators" (Triple) - Bing video	 Pg 11 Pg 12 Pg 14 Pg 15

PU2 Electricity: Spec ref: 4.2.4 Energy Transfers Power of electrical appliances More on Power National grid	Energy and power in electric circuits - Electric circuits - AQA - GCSE Physics (Single Science) Revision - AQA - BBC Bitesize Electrical appliances - Mains electricity - AQA - GCSE Physics (Single Science) Revision - AQA - BBC Bitesize Alternating current and the National Grid - Mains electricity - AQA - GCSE Physics (Single Science) Revision - AQA - BBC Bitesize	Pg 32 Pg 33 Pg 34
PU3 Particle Model of Matter: Spe ref: 4.3.1 Changes of state and the particle model Density of materials **Required practical 5**: determine the densities of regular and irregular solid objects and liquids Internal energy and energy transfers: Spec ref: 4.3.2 Internal energy and changes of state	Density - Density of materials - AQA - GCSE Physics (Single Science) Revision - AQA - BBC Bitesize all 3 pages on Bitesize **Free science lessons practical: Density:** GCSE Science Revision Physics "Required Practical 5: Density" - Bing video **Cognito**: GCSE Physics - Density #26 - Bing video **Cognito:** GCSE Physics - Internal Energy and Specific Heat Capacity #27 - Bing video	Pg 38 Pg 39

Specific Latent heat	Internal energy - Temperature changes and energy - AQA - GCSE Physics (Single Science) Revision - AQA - BBC Bitesize pages 2 and 3 Specific latent heat - Temperature changes and energy - AQA - GCSE Physics (Single Science) Revision - AQA - BBC Bitesize	Pg 40
Specific Heat capacity	Specific heat capacity - Temperature changes and energy - AQA - GCSE Physics (Single Science) Revision - AQA - BBC Bitesize	Pg 13
Physics Paper 2 Higher **PU5: Forces:** Spec ref: 4.5.1 Forces and their interactions Contact and non-contact forces	**Cognito -** GCSE Physics - Contact and Non-Contact Forces #40 - Bing video Contact forces - Contact and non-contact forces - AQA - GCSE Physics (Single Science) Revision - AQA - BBC Bitesize – pages 1 and 2 Scalar quantities - Scalar and vector quantities - AQA - GCSE Physics (Single Science) Revision - AQA - BBC Bitesize– pages 1, 2 and 3	Pg 51
Weight, Mass and Gravity	Gravitational fields - Gravity - AQA - GCSE Physics (Single Science) Revision - AQA - BBC Bitesize	Pg 52
4.5.2 Work done and energy transfers: Resultant forces and work done	How to calculate work done - Gravity - AQA - GCSE Physics (Single Science) Revision - AQA - BBC Bitesize	Pg 53
4.5.3 Forces and elasticity Investigating Springs	Change of shape - Forces and elasticity - AQA - GCSE Physics (Single Science) Revision - AQA - BBC Bitesize	Pg 55 Pg 56

4.5.5 Pressure and pressure differences in fluids Fluid pressure Upthrust and atmospheric pressure 4.5.6.1 Describing motion along a line Distance, displacement, speed, velocity Acceleration Distance-time and velocity- time graphs 4.5.7 Momentum Momentum Changes in momentum	Calculating pressure - Pressure in fluids - AQA - GCSE Physics (Single Science) Revision - AQA - BBC Bitesize all pages **Cognito-** GCSE Physics - Distance-Time Graphs #53 - Bing video GCSE Physics - Velocity Time Graphs #54 - Bing video Motion in a straight line - Describing motion - AQA - GCSE Physics (Single Science) Revision - AQA - BBC Bitesize all pages **Cognito -** GCSE Physics - Momentum Part 1 of 2 - Conservation of Momentum Principle #59 - Bing video GCSE Physics - Momentum Part 2 of 2 - Changes in Momentum #60 - Bing video Momentum - Higher - Momentum - Higher - AQA - GCSE Physics (Single Science) Revision - AQA - BBC Bitesize	Pg 58 Pg 59 Pg 60 Pg 61 Pg 62 Pg 70 Pg71
PU6 Waves 4.6.1 Waves in air, fluids and solids Transverse and longitudinal waves	Longitudinal waves - Transverse and longitudinal waves - AQA - GCSE Physics (Single Science) Revision - AQA - BBC Bitesize pages 1-2 **Cognito -** GCSE Physics - Intro to Waves - Longitudinal and Transverse Waves #61 - Bing video	Pg 73

Experiments with waves Reflection and refraction **Required practical 9.** Soundwaves Ultrasound Exploring structures using waves	 https://www.bbc.co.uk/bitesize/guides/z9bw6yc/revision/1 **Free science lesson: Required practical 9:** GCSE Science Revision Physics "Required practical 9: Reflection and Refraction" (Triple) - Bing video Sound waves - Sound and ultrasound - Higher - AQA - GCSE Physics (Single Science) Revision - AQA - BBC Bitesize GCSE Physics - Seismic Waves #75 - Bing video	Pg 74 Pg 75 and 76 Pg 88 Pg 89 Pg 90
PU8 Space Physics 4.8.1 Solar system, stability of orbital moons, satellites The life cycle of stars The solar system and orbits 4.8.2 Redshift Redshift and the big bang	 The formation and life cycle of stars - The life cycle of a star - AQA - GCSE Physics (Single Science) Revision - AQA - BBC Bitesize Structure of the Solar System - The Solar System - AQA - GCSE Physics (Single Science) Revision - AQA - BBC Bitesize Red-shift - The expanding Universe - AQA - GCSE Physics (Single Science) Revision - AQA - BBC Bitesize – page 1 and first part of page 2	 Pg 100 Pg 101 Pg 108

Non-Examined content

Content not examined in paper 1	Revision guide pages to ignore
• 4.2.1 Current, potential difference and resistance	Pg 24-27
• 4.2.2 Series and parallel circuits	Pg 28-30
• 4.2.3 Domestic uses and safety	Pg 31
• 4.3.3 Particle model and pressure	Pg 41
• 4.4.1 Atoms and isotopes	Pg 44
• 4.4.3 Hazards and uses of radioactive emissions and of background radiation	Pg 47-48
• 4.4.4 Nuclear fission and fusion	Pg 49

Content not examined in paper 2	Revision guide pages to ignore
• 4.5.4 Moments, levers and gears	Pg 57
• 4.6.2 Electromagnetic waves	Pg 76
• 4.6.3 Black body radiation	Not covered in revision guide pages
• 4.7.1 Permanent and induced magnetism, magnetic forces and fields	Pg 92-99