

AQA GCSE Physics (Higher) - Specification Points to Learn for Summer 2022 Exams

Key

YES =	This will be a major focus of the paper.
Maybe =	This might be assessed in short answer questions or synoptic questions (questions which draw together multiple topics).
no =	This will not be assessed in the paper.

PPQs = Past paper questions

Paper 1H - Thursday 9th June 2022

4.1 Energy

4.1.1 - Energy changes in a system, and the ways energy is stored before and after such changes

Num.	Topic Name	In Paper 1?	Flashcards made?	Flashcards learnt?	PPQs Done?
4.1.1.1	Energy stores and systems	YES			
4.1.1.2	Changes in energy	YES			
4.1.1.3	Energy changes in systems	YES			
4.1.1.4	Power	YES			

4.1.2 - Conservation and dissipation of energy

Num.	Topic Name	In Paper 1?	Flashcards made?	Flashcards learnt?	PPQs Done?
4.1.2.1	Energy transfers in a system	YES			
4.1.2.2	Efficiency	YES			

4.1.3 - National and global energy resources

Num.	Topic Name	In Paper 1?	Flashcards made?	Flashcards learnt?	PPQs Done?
4.1.3	National and global energy resources	Maybe			

4.2 Electricity

4.2.1 - Current, potential difference and resistance

Num.	Topic Name	In Paper 1?	Flashcards made?	Flashcards learnt?	PPQs Done?
4.2.1.1	Standard circuit diagram symbols	no	- N/A -	- N/A -	- N/A -
4.2.1.2	Electrical charge and current	no	- N/A -	- N/A -	- N/A -
4.2.1.3	Current, resistance and potential difference	no	- N/A -	- N/A -	- N/A -
4.2.1.4	Resistors	no	- N/A -	- N/A -	- N/A -

4.2.2 - Series and parallel circuits

Num.	Topic Name	In Paper 1?	Flashcards made?	Flashcards learnt?	PPQs Done?
4.2.2	Series and parallel circuits	no	- N/A -	- N/A -	- N/A -

4.2.3 - Domestic uses and safety

Num.	Topic Name	In Paper 1?	Flashcards made?	Flashcards learnt?	PPQs Done?
4.2.3.1	Direct and alternating potential difference	no	- N/A -	- N/A -	- N/A -
4.2.3.2	Mains electricity	no	- N/A -	- N/A -	- N/A -

4.2.4 - Energy transfers

Num.	Topic Name	In Paper 1?	Flashcards made?	Flashcards learnt?	PPQs Done?
4.2.4.1	Power	YES			
4.2.4.2	Energy transfers in everyday appliances	YES			
4.2.4.3	The National Grid	YES			

4.2.5 - Static electricity

Num.	Topic Name	In Paper 1?	Flashcards made?	Flashcards learnt?	PPQs Done?
4.2.5.1	Static charge	Maybe			
4.2.5.2	Electric fields	Maybe			

4.3 Particle model of matter

4.3.1 - Changes of state and the particle model

Num.	Topic Name	In Paper 1?	Flashcards made?	Flashcards learnt?	PPQs Done?
4.3.1.1	Density of materials	YES			
4.3.1.2	Changes of state	YES			

4.3.2 - Internal energy and energy transfers

Num.	Topic Name	In Paper 1?	Flashcards made?	Flashcards learnt?	PPQs Done?
4.3.2.1	Internal energy	YES			
4.3.2.2	Temperature changes in a system and specific heat capacity	YES			
4.3.2.3	Changes of state and specific latent heat	YES			

4.3.3 - Particle model and pressure

Num.	Topic Name	In Paper 1?	Flashcards made?	Flashcards learnt?	PPQs Done?
4.3.3.1	Particle motion in gases	no	- N/A -	- N/A -	- N/A -
4.3.3.2	Pressure in gases	no	- N/A -	- N/A -	- N/A -
4.3.3.3	Increasing the pressure of a gas	no	- N/A -	- N/A -	- N/A -

4.4 Atomic structure

4.4.1 - Atoms and isotopes

Num.	Topic Name	In Paper 1?	Flashcards made?	Flashcards learnt?	PPQs Done?
4.4.1.1	The structure of an atom	no	- N/A -	- N/A -	- N/A -
4.4.1.2	Mass number, atomic number and isotopes	no	- N/A -	- N/A -	- N/A -
4.4.1.3	The development of the model of the atom (common content with chemistry)	no	- N/A -	- N/A -	- N/A -

4.4.2 - Atoms and nuclear radiation

Num.	Topic Name	In Paper 1?	Flashcards made?	Flashcards learnt?	PPQs Done?
4.4.2.1	Radioactive decay and nuclear radiation	Maybe			
4.4.2.2	Nuclear equations	Maybe			
4.4.2.3	Half-lives and the random nature of radioactive decay	Maybe			
4.4.2.4	Radioactive contamination	Maybe			

4.4.3 - Hazards and uses of radioactive emissions and of background radiation

Num.	Topic Name	In Paper 1?	Flashcards made?	Flashcards learnt?	PPQs Done?
4.4.3.1	Background radiation	no	- N/A -	- N/A -	- N/A -
4.4.3.2	Different half-lives of radioactive isotopes	no	- N/A -	- N/A -	- N/A -
4.4.3.3	Uses of nuclear radiation	no	- N/A -	- N/A -	- N/A -

4.4.4 - Nuclear fission and fusion

Num.	Topic Name	In Paper 1?	Flashcards made?	Flashcards learnt?	PPQs Done?
4.4.4.1	Nuclear fission	no	- N/A -	- N/A -	- N/A -
4.4.4.2	Nuclear fusion	no	- N/A -	- N/A -	- N/A -

Paper 2H - Thursday 23rd June 2022

4.5 Forces

4.5.1 - Forces and their interactions

Num.	Topic Name	In Paper 2?	Flashcards made?	Flashcards learnt?	PPQs Done?
4.5.1.1	Scalar and vector quantities	YES			
4.5.1.2	Contact and non-contact forces	YES			
4.5.1.3	Gravity	YES			
4.5.1.4	Resultant forces	YES			

4.5.2 - Work done and energy transfer

Num.	Topic Name	In Paper 2?	Flashcards made?	Flashcards learnt?	PPQs Done?
4.5.2	Work done and energy transfer	YES			

4.5.3 - Forces and elasticity

Num.	Topic Name	In Paper 2?	Flashcards made?	Flashcards learnt?	PPQs Done?
4.5.3	Forces and elasticity	YES			

4.5.4 - Moments, levers and gears

Num.	Topic Name	In Paper 2?	Flashcards made?	Flashcards learnt?	PPQs Done?
4.5.4	Moments, levers and gears	no	- N/A -	- N/A -	- N/A -

4.5.5 - Pressure and pressure differences in fluids

Num.	Topic Name	In Paper 2?	Flashcards made?	Flashcards learnt?	PPQs Done?
4.5.5.1.1	Pressure in a fluid 1	YES			
4.5.5.1.2	Pressure in a fluid 2	YES			
4.5.5.2	Atmospheric pressure	YES			

4.5.6 - Forces and motion

Num.	Topic Name	In Paper 2?	Flashcards made?	Flashcards learnt?	PPQs Done?
4.5.6.1.1	Distance and displacement	YES			
4.5.6.1.2	Speed	YES			
4.5.6.1.3	Velocity	YES			
4.5.6.1.4	The distance–time relationship	YES			
4.5.6.1.5	Acceleration	YES			

4.5.6.2. 1	Newton's First Law	Maybe			
4.5.6.2. 2	Newton's Second Law	Maybe			
4.5.6.2. 3	Newton's Third Law	Maybe			
4.5.6.3. 1	Stopping distance	Maybe			
4.5.6.3. 2	Reaction time	Maybe			
4.5.6.3. 3	Factors affecting braking distance 1	Maybe			
4.5.6.3. 4	Factors affecting braking distance 2	Maybe			

4.5.7 - Momentum

Num.	Topic Name	In Paper 2?	Flashcards made?	Flashcards learnt?	PPQs Done?
4.5.7.1	Momentum is a property of moving objects	YES			
4.5.7.2	Conservation of momentum	YES			
4.5.7.3	Changes in momentum	YES			

4.6 Waves

4.6.1 - Waves in air, fluids and solids

Num.	Topic Name	In Paper 2?	Flashcards made?	Flashcards learnt?	PPQs Done?
4.6.1.1	Transverse and longitudinal waves	YES			
4.6.1.2	Properties of waves	YES			
4.6.1.3	Reflection of waves	YES			
4.6.1.4	Sound waves	YES			
4.6.1.5	Waves for detection	YES			

	and exploration				
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4.6.2 - Electromagnetic waves

Num.	Topic Name	In Paper 2?	Flashcards made?	Flashcards learnt?	PPQs Done?
4.6.2.1	Types of electromagnetic waves	no	- N/A -	- N/A -	- N/A -
4.6.2.2	Properties of electromagnetic waves 1	no	- N/A -	- N/A -	- N/A -
4.6.2.3	Properties of electromagnetic waves 2	no	- N/A -	- N/A -	- N/A -
4.6.2.4	Uses and applications of electromagnetic waves	no	- N/A -	- N/A -	- N/A -
4.6.2.5	Lenses	no	- N/A -	- N/A -	- N/A -
4.6.2.6	Visible light	no	- N/A -	- N/A -	- N/A -

4.6.3 - Black body radiation

Num.	Topic Name	In Paper 2?	Flashcards made?	Flashcards learnt?	PPQs Done?
4.6.3.1	Emission and absorption of infrared radiation	no	- N/A -	- N/A -	- N/A -
4.6.3.2	Perfect black bodies and radiation	no	- N/A -	- N/A -	- N/A -

4.7 Magnetism and electromagnetism

4.7.1 - Permanent and induced magnetism, magnetic forces and fields

Num.	Topic Name	In Paper 2?	Flashcards made?	Flashcards learnt?	PPQs Done?
4.7.1.1	Poles of a magnet	no	- N/A -	- N/A -	- N/A -
4.7.1.2	Magnetic fields	no	- N/A -	- N/A -	- N/A -

4.7.2 - The motor effect

Num.	Topic Name	In Paper 2?	Flashcards made?	Flashcards learnt?	PPQs Done?
4.7.2.1	Electromagnetism	Maybe			
4.7.2.2	Fleming's left-hand rule	Maybe			
4.7.2.3	Electric motors	Maybe			
4.7.2.4	Loudspeakers	Maybe			

4.7.3 - Induced potential, transformers and the National Grid

Num.	Topic Name	In Paper 2?	Flashcards made?	Flashcards learnt?	PPQs Done?
4.7.3.1	Induced potential	Maybe			
4.7.3.2	Uses of the generator effect	Maybe			
4.7.3.3	Microphones	Maybe			
4.7.3.4	Transformers	Maybe			

4.8 Space physics

4.8.1 - Solar system; stability of orbital motions; satellites

Num.	Topic Name	In Paper 2?	Flashcards made?	Flashcards learnt?	PPQs Done?
4.8.1.1	Our solar system	YES			
4.8.1.2	The life cycle of a star	YES			
4.8.1.3	Orbital motion, natural and artificial satellites	YES			

4.8.2 - Red-shift

Num.	Topic Name	In Paper 2?	Flashcards made?	Flashcards learnt?	PPQs Done?
4.8.2	Red-shift	YES			