

Separate Science AQA GCSE Physics 8463 Additional Information Higher Tier

Paper 1H 8463/1H

For this paper, the following list shows the major focus of the content of the exam:

- 4.1.1 Energy changes in a system, and the ways energy is stored before and after such changes
- 4.1.2 Conservation and dissipation of energy
- 4.2.4 Energy transfers
- 4.3.1 Changes of state and the particle model
- 4.3.2 Internal energy and energy transfers

Required practical activities that will be assessed:

- Required practical activity 2: investigate the effectiveness of different materials as thermal insulators and the factors that may affect the thermal insulation properties of a material.
- Required practical activity 5: use appropriate apparatus to make and record the measurements needed to determine the densities of regular and irregular solid objects and liquids. Volume should be determined from the dimensions of regularly shaped objects, and by a displacement technique for irregularly shaped objects. Dimensions to be measured using appropriate apparatus such as a ruler, micrometer or Vernier callipers.

Topics not assessed in this paper:

- 4.2.1 Current, potential difference and resistance
- 4.2.2 Series and parallel circuits
- 4.2.3 Domestic uses and safety
- 4.3.3 Particle model and pressure
- 4.4.1 Atoms and isotopes
- 4.4.3 Hazards and uses of radioactive emissions and of background radiation
- 4.4.4 Nuclear fission and fusion

Paper 2H 8463/2H

For this paper, the following list shows the major focus of the content of the exam:

- 4.5.1 Forces and their interactions
- 4.5.2 Work done and energy transfer
- 4.5.3 Forces and elasticity
- 4.5.5 Pressure and pressure differences in fluids
- 4.5.6.1 Describing motion along a line
- 4.5.7 Momentum
- 4.6.1 Waves in air, fluids and solids
- 4.8.1 Solar system; stability of orbital motions; satellites
- 4.8.2 Red-shift

Required practical activity that will be assessed:

- Required practical activity 9: investigate the reflection of light by different types of surface and the refraction of light by different substances.

Topics not assessed in this paper:

- 4.5.4 Moments, levers and gears
- 4.6.2 Electromagnetic waves
- 4.6.3 Black body radiation
- 4.7.1 Permanent and induced magnetism, magnetic forces and fields