



GCSE PHYSICS

Science Department

Paper 1H 8463/1H

The format/structure of the papers remains unchanged. For each paper the list shows the major focus of the content of the exam. Each paper may cover some, or all, of the content in the listed topic. Another list shows which required practical activities will be assessed. Topics not assessed either directly or through 'linked' content have also been listed. Assessment of practical skills, maths skills, and Working Scientifically skills will occur throughout all the papers. Topics not explicitly given in any list may appear in low tariff questions or via 'linked' questions. Linked questions are those that bring together knowledge, skills and understanding from across the specification. Students will still be expected to apply their knowledge to unfamiliar contexts

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