

GCSE COMBINED SCIENCE: TRILOGY

Science Department.

Paper Physics 1F 8464/P/1F

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:

- 6.1.1 Energy changes in a system, and the ways energy is stored before and after such changes
- 6.1.3 National and global energy resources
- 6.2.1 Current, potential difference and resistance
- 6.3.1 Changes of state and the particle model
- 6.4.2 Atoms and nuclear radiation

Required practical activities that will be assessed:

• Required practical activity 14: an investigation to determine the specific heat capacity of one or more materials. The investigation will involve linking the decrease of one energy store (or work done) to the increase in temperature and subsequent increase in thermal energy stored.

• Required practical activity 16: use circuit diagrams to construct appropriate circuits to investigate the I–V characteristics of a variety of circuit elements, including a filament lamp, a diode and a resistor at constant temperature.

Topics not assessed in this paper:

- 6.2.3 Domestic uses and safety
- 6.3.3 Particle model and pressure
- 6.4.1 Atoms and isotopes



GCSE COMBINED SCIENCE: TRILOGY

Science Department.

Paper Physics 1H 8464/P/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 <u>major focus</u> of the content of the exam:

- 6.1.1 Energy changes in a system, and the ways energy is stored before and after such changes
- 6.2.4 Energy transfers
- 6.3.1 Changes of state and the particle model
- 6.3.3 Particle model and pressure
- 6.4.1 Atoms and isotopes
- 6.4.2 Atoms and nuclear radiation

Required practical activities that will be assessed:

• Required practical activity 14: an investigation to determine the specific heat capacity of one or more materials. The investigation will involve linking the decrease of one energy store (or work done) to the increase in temperature and subsequent increase in thermal energy stored.

• Required practical activity 16: use circuit diagrams to construct appropriate circuits to investigate the I–V characteristics of a variety of circuit elements, including a filament lamp, a diode and a resistor at constant temperature.

Topics not assessed in this paper:

- 6.2.2 Series and parallel circuits
- 6.2.3 Domestic uses and safety
- 6.3.2 Internal energy and energy transfers