

Instructions

• Please ensure that you have read this notice before the examination.

Information

- This notice covers all examined components.
- The format/structure of the assessments remains unchanged.
- The advance information details the focus of the content of the exams in the May–June 2022 assessments.
- There are no restrictions on who can use this notice.
- This notice is meant to help students to focus their revision time.
- Students and teachers can discuss the advance information.
- This document has 7 pages.





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General advice

- In addition to covering the content outline in the Advance Information, students and teachers should consider how to:
 - manage their revision of content which may be assessed in areas not covered by the Advance Information
 - manage their revision of other parts of the specification which may provide knowledge that helps with understanding the areas being tested in 2022.
- For specifications with synoptic questions, topics not explicitly given in the Advance Information may appear, e.g. where students are asked to bring together knowledge, skills and understanding from across the specification.
- For specifications with optional papers/topics/content, students should only refer to the advance information for their intended option.
- For specifications with NEA, advance information does not cover any NEA components.

A link to the Joint Council for Qualifications guidance document on advance information can be found on the Joint Council for Qualifications website or <u>here</u>.

Advance Information

Subject specific section

- For each paper the list shows the major focus of the content of the exam.
- Topics **not** assessed either directly or synoptically have also been listed.
- The information is presented in specification order and not in question order.
- Numbers in brackets refer to the points as listed in the specification.
- Assessment of practical skills, maths skills, and Working Scientifically skills will occur throughout all the papers.
- Core practicals that will be assessed have also been listed.
- Topics not explicitly given in either list may appear in low tariff questions or via synoptic or 'linked' questions. Synoptic or '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.
- Each exam paper may include some, or all, of the content in the listed topic.

Paper 1PH0/1F

Content **will be assessed** from the following topics:

- Topic 2 Motion and forces Velocity and acceleration (2.1–2.13)
- Topic 3 Conservation of energy energy transfers and efficiency (3.1–3.11)
- Topic 4 Waves Waves and their effects (4.1–4.11)
- Topic 5 Light and the electromagnetic spectrum Light and lenses (5.1P–5.6P)
- Topic 6 Radioactivity Activity of radioactive sources, half-life, dangers and applications (6.23–6.35P)
- Topic 6 Radioactivity Nuclear fission and nuclear fusion (6.36P–6.46P)
- Topic 7 Astronomy Solar System (7.1P–7.7P)

Core practical activities that **will be assessed**:

Core Practical 4.17: Investigate the suitability of equipment to measure the speed, frequency and wavelength of a wave in a solid and a fluid

Topics not assessed in this paper:

- Topic 2 Motion and forces Newton's 3rd Law (2.23)
- Topic 3 Conservation of energy Energy sources and patterns in usage of energy (3.13–3.14)
- Topic 4 Waves Sound with applications (4.12P–4.16P)
- Topic 5 Light and the electromagnetic spectrum Emission and absorption of thermal radiation (5.12–5.19P)
- Topic 7 Astronomy Big Bang and Steady State theory (7.8P–7.15P)

Paper 1PH0/1H

Content **will be assessed** from the following topics:

- Topic 2 Motion and forces Velocity and acceleration (2.1–2.13)
- Topic 2 Motion and forces Newton's 3rd law and momentum (2.20–2.26)
- Topic 3 Conservation of energy Energy transfers and efficiency (3.1–3.12)
- Topic 4 Waves Sound with applications (4.12P–4.16P)
- Topic 5 Light and the electromagnetic spectrum Light and lenses (5.1P–5.6P)
- Topic 6 Radioactivity Emission of ionising radiations (6.10–6.22)
- Topic 7 Astronomy Big Bang and Steady State theory (7.8P–7.15P)

Core practical activities that **will be assessed**:

• No core practicals are assessed in this paper

Topics **not assessed** in this paper:

- Topic 2 Motion and forces Newton's 1st law and 2nd law (2.14–2.19)
- Topic 3 Conservation of energy Energy sources and patterns in usage of energy (3.13–3.14)
- Topic 5 Light and the electromagnetic spectrum Emission and absorption of thermal radiation (5.12–5.19P)
- Topic 7 Astronomy Solar System (7.1P–7.7P)

Paper 1PH0/2F

Content **will be assessed** from the following topics:

- Topic 8 Energy Forces doing work (8.1–8.15)
- Topic 9 Forces and their effects Rotation and principles of moments (9.6P–9.8P)
- Topic 10 Electricity and circuits Electrical circuit principles (10.1–10.17)
- Topic 11 Static electricity: (11.1P–11.10P)
- Topic 12 Magnetism and the motor effect Magnets and magnetic fields (12.1–12.6)
- Topic 14 Particle model Pressure of a gas (14.12–14.19)
- Topic 15 Forces and Matter Pressure in fluids (15.7P–15.14P)

Core practical activities that **will be assessed**:

- Core practical 14.3 Investigate the densities of solids and liquids
- Core practical 14.11 Investigate the properties of water by determining the specific heat capacity of water and obtaining a temperature time graph for melting ice

Topics **not assessed** in this paper:

- Topic 9 Forces and their effects Describing and representing forces (9.1–9.2)
- Topic 10 Electricity and circuits Electrical devices (10.18–10.21)
- Topic 12 Magnetism and the motor effect Electromagnetism (12.7–12.9)
- Topic 13 Electromagnetic induction (13.8–13.10)
- Topic 15 Forces and matter (15.1–15.6)

Paper 1PH0/2H

Content **will be assessed** from the following topics:

- Topic 8 Energy Forces doing work (8.1–8.15)
- Topic 9 Forces and their effects Rotation and the principle of moments (9.6P–9.8P)
- Topic 10 Electricity and circuits Electrical circuit principles (10.1–10.7)
- Topic 11 Static electricity (11.1P-11.10P)
- Topic 12 Magnetism and the motor effect Magnets and magnetic fields (12.1–12.6)
- Topic 13 Electromagnetic induction Transformers (13.5P–13.11P)
- Topic 14 Particle Model Properties of solids, liquids and gases (14.1–14.5)
- Topic 15 Forces and matter Pressure in fluids (15.7P–15.14P)

Core practical activities that **will be assessed**:

•	Core Practical 10.17	Construct electrical circuits to: A Investigate the relationship between potential difference, current and resistance for a resistor and a lamp B: B test series and parallel circuits using resistors and filament lamps
•	Core Practical 14.3 Core Practical 14.11	Investigate the densities of solids and liquids Investigate the properties of water by determining the specific heat capacity of water and obtaining a temperature- time graph for melting ice

Topics **not assessed** in this paper:

- Topic 10 Electricity and circuits ac and dc used in practice (10.32-10.42)
- Topic 15 Forces and matter Elasticity (15.1–15.6)
- Topic 15 Forces and matter Archimedes' principle (15.15P–15.17P)

END OF ADVANCE INFORMATION