

# Advance information June 2022

## A-level Chemistry (7405)

### Version 1.0

Because of the ongoing impacts of the Coronavirus (COVID-19) pandemic, we are providing advance information on the focus of June 2022 exams to help students revise.

This is the advance information for A-level Chemistry (7405).

### Information

- This advance information covers all examined components.
- For each paper the list shows the major focus of the content of the examination; the topic areas are listed in rank order, with the areas carrying the highest mark allocations at the top of each list.
- Topics not explicitly given in the list may appear in multiple-choice items, low tariff questions, or via synopticity.
- Assessment of practical skills (section 8.3 of the specification) and maths skills (section 6 of the specification) occurs throughout the three papers.
- It is **not** permitted to take this advance information into the examination.

### Advice

- Students and teachers should consider how to focus their revision of other non-listed parts of the specification, which may be tested in lower mark questions.
- Students will still be expected to apply their knowledge to unfamiliar contexts.
- Students will be expected to draw on knowledge, skills and understanding from across the specification when responding to synoptic questions.

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## Focus of the June 2022 exam

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The inclusion of Required Practicals in the lists below should not be taken to imply direct references to those procedures quoted in the Practical Handbook. They are there to give a general idea of the context in which practical work is being assessed.

### Paper 1 7405/1 Inorganic and Physical Chemistry

- 3.1.12 Acids and bases
- 3.1.2 Amount of substance
- 3.2.5 Transition metals
- 3.2.3 Group 7(17), the halogens
- 3.1.1 Atomic structure
- 3.1.3 Bonding
- 3.1.10 Equilibrium constant  $K_p$  for homogeneous systems

### Paper 2 7405/2 Organic and Physical Chemistry

- 3.3.4 Alkenes (including Required Practical 10)
- 3.1.2 Amount of substance
- 3.3.13 Amino acids, proteins and DNA
- 3.1.6 Chemical equilibria, Le Chatelier's principle and  $K_c$
- 3.1.9 Rate equations
- 3.3.10 Aromatic chemistry
- 3.3.1 Introduction to organic chemistry

### Paper 3 7405/3

(This is the synoptic paper, so these topics may be assessed in combination.)

- 3.1.8 Thermodynamics (including Required Practical 2)
- 3.3.1 Introduction to organic chemistry
- 3.2.5 Transition metals
- 3.3.3 Halogenoalkanes
- 3.1.9 Rate equations (including Required Practical 7)
- 3.1.2 Amount of substance (including Required Practical 4)
- 3.1.11 Electrode potentials and electrochemical cells

END OF ADVANCE INFORMATION