

GCSE (9-1) Combined Science A - Foundation Tier

OCR A

Science set 11I, 11N, 11G

Advanced Information Guidance 2022

Key Points

- The structure of the exam has not changed.
- The “must revise” list shows the major focus of the content of the exam. It is likely the 6-mark question will be from one of these topics.
- The “must revise” list should help you prioritise your revision. This should **NOT** be used as a complete list.
- The other topics will appear on the paper. They may be assessed in multiple choice questions in section A or low mark questions in section B.
- The multiple-choice questions are 17% of the paper marks.
- You will still be expected to apply your knowledge to unfamiliar contexts.
- You will still be assessed on math skills and working scientifically.
- The paper will not contain any higher tier topics. For example, C3.1 mole calculations.

J250/01 Biology Paper 1

17th May

60 marks - 1 hour 10 minutes

<u>Must Revise</u>	<u>Revised?</u>	<u>Should Revise</u>	<u>Revised?</u>	<u>Ideally Revise</u>	<u>Revised?</u>
Section B1.1 Cell Structures		Section B3.2 The endocrine system			
Section B1.2 What happens in cells?		Section B3.3 Maintaining internal environments			
Section B1.3 Respiration					
Section B1.4 Photosynthesis					
Section B2.1 Supplying the cell					
Section B2.2 The challenges of size					
Section B3.1 Coordination and control – the nervous system					

B1.2 Practical Activity Group 3: Investigate the factors that can affect the rate of enzyme activity.					
B1.4 Practical Activity Group 4: Investigate the factors that can affect the rate of photosynthesis of pondweed.					
B2.1 Practical Activity Group 4: Investigate water uptake by a plant or water loss from a plant.					

J250/02 Biology Paper 2

15th June

60 marks - 1 hour 10 minutes

<u>Must Revise</u>	<u>Revised?</u>	<u>Should Revise</u>	<u>Revised?</u>	<u>Ideally Revise</u>	<u>Revised?</u>
Section B4.1 Ecosystems		Section B5.2 Natural selection and evolution		Section B6.2 Feeding the human race	
Section B5.1 Inheritance					
Section B6.1 Monitoring and maintaining the environment					
Section B6.3 Monitoring and maintaining health					
Section B6.3 Part 2 Non-communicable diseases					
B6.1 Practical Activity Group 2: Investigate habitats using sampling techniques.					

J250/03 Chemistry Paper 127th May

60 marks – 1 hour 10 minutes

<u>Must Revise</u>	<u>Revised?</u>	<u>Should Revise</u>	<u>Revised?</u>	<u>Ideally Revise</u>	<u>Revised?</u>
Section C1.2 Atomic structure		Section C1.1 The Particle Model		Section C3.4 Electrolysis	
Section C2.1 Purity and separating mixtures		Section C3.2 Energetics			
Section C2.2 Bonding					
Section C2.3 Properties of materials					
Section C3.1 Introducing chemical reactions					
Section C3.3 Types of chemical reaction					
C2.1 Practical Activity Group 2: Separate chemical mixtures, distillation					
C2.1 Practical Activity Group 3: Separate chemical mixtures, chromatography					
C3.3 Practical Activity Group 4: Production of a salt.					

C5.1 Practical Activity Group 5: Measure the rate of a chemical reaction.					
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J250/04 Chemistry Paper 2

20th June

60 marks – 1 hour 10 minutes

<u>Must Revise</u>	<u>Revised?</u>	<u>Should Revise</u>	<u>Revised?</u>	<u>Ideally Revise</u>	<u>Revised?</u>
Section C4.1 Predicting chemical reactions				Section C5.2 Equilibria	
Section C6.1 Improving processes and products					
Section C6.2 Interpreting and interacting with Earth systems					
C6.1 Practical Activity Group 3: Separate chemical mixtures. This could be fractional distillation of crude oil.					
C4.1 Practical Activity Group 4: Production of salts in displacement reactions.					
Section C5.1 Controlling reactions					
C5.1 Practical Activity Group 5: Measure the rate of reaction between a metal and an acid.					
C2.1 Practical Activity Group 3: Separate chemical mixtures, chromatography					

C3.3 Practical Activity Group 4: Production of a salt.					
C5.1 Practical Activity Group 5: Measure the rate of a chemical reaction.					

J250/05 Physics Paper 1

9th June

60 marks – 1 hour 10 minutes

You will be given an equation sheet. <https://ocr.org.uk/Images/638457-data-sheet-for-june-2022.pdf>

<u>Must Revise</u>	<u>Revised?</u>	<u>Should Revise</u>	<u>Revised?</u>	<u>Ideally Revise</u>	<u>Revised?</u>
Section P1.2 Changes of state		Section P1.1 The particle model		Section P3.3 Magnets and magnetic fields	
Section P2.1 Motion					
Section P2.2 Newton's laws					
Section P2.3 Forces in action					
Section P3.2 Simple circuits					
P1.2 Practical Activity Group 1: Determine the density of an object.					
P2.3 Practical Activity Group 2: Investigate the effect of forces on springs					
P3.2 Practical Activity Group 6: Measure the current and potential difference in a circuit.					

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J250/06 Physics Paper 2

23rd June

60 marks – 1 hour 10 minutes

You will be given an equation sheet. <https://ocr.org.uk/Images/638457-data-sheet-for-june-2022.pdf>

<u>Must Revise</u>	<u>Revised?</u>	<u>Should Revise</u>	<u>Revised?</u>	<u>Ideally Revise</u>	<u>Revised?</u>
Section P4.1 Wave behaviour		Section 4.2 Electromagnetic spectrum		P3.2 Simple circuits	
Section P4.3 Radioactivity		Section P6.1 Physics on the move			
Section P5.1 Work done					
Section P5.2 Power and efficiency					
Section P6.2 Powering Earth					
P4.1 Practical Activity Group 4: Investigate the behaviour of waves in a ripple tank.					
P1.2 Practical Activity Group 5: Measure energy transfer to water.					

P3.2, P6.2 Practical Activity Group 6: Construct a circuit to measure energy transfer.					
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