



Rationale document

Centre number	XX456
Centre name	YYY School
Level and title of syllabus	Cambridge International AS/A Level Chemistry
Syllabus code	9701

Why you must complete the Rationale Document for each syllabus

The Rationale Document explains how you have produced and chosen the candidate evidence for your candidates' portfolios of evidence.

You must complete a Rationale Document for each syllabus. We will need to see the Rationale Document when Cambridge examiners are marking your candidates' portfolios of evidence. Failure to complete and submit the Rationale Document correctly may result in delays to your candidates receiving grades.

If you are completing this form for an A Level syllabus, you must explain how you have produced and chosen both the AS portfolio of evidence and the A2 portfolio of evidence.

Who completes the Rationale Document for each syllabus?

The Rationale Document should be completed by the Head of Department for each syllabus (or by the teacher if there is no Head of Department), to explain to us how you have produced and chosen your candidates' portfolios of evidence for the November 2022 exam series.

When you must submit the Rationale Document for each syllabus

You must complete a Rationale Document for each syllabus for which you are submitting entries. The Rationale Document must be uploaded for each syllabus when you upload the portfolios of evidence to Submit for Assessment.

You should also keep a copy of the Rationale Document for your records.

What your completed Rationale Document must include

The Rationale Document must provide information about the areas below as relevant to the syllabus and your centre.

- A Selection of work**
- B Coverage of syllabus content and assessment objectives**
- C Security and authenticity of work**
- D Access arrangements**

What happens after submitting the Rationale Document?

We will use the Rationale Document when we are marking the evidence that you have submitted for a candidate. If we are concerned that you have not followed the requirements set out in our guidance, then we may need to contact you to explore this further.

Private candidates

If you have accepted entries for private candidates, please explain how their work has been obtained, selected and authenticated, then go on to answer the rest of the questions in this Rationale Document.

We accepted an entry for one private candidate for this syllabus (0008). She was entered as a linear route candidate. I arranged for this single student to attend our school in person on four separate days in a Covid-safe way and in line with our local guidelines. She completed the school-set assignment (A2 Level) at home, in the same way as our other students.

On those days in school, the student took the same exam papers as the school candidates entered for a linear entry option, as I have described in Section A, including A2 Level Evidence 1 (Paper 4). I was able to invigilate the student taking the exams and so can authenticate the work as the student's own. I conducted a viva with the student in order to authenticate the school-set assignment (A2 Level Evidence 3).

The following questions apply to all candidates, including private candidates.

A Selection of work

You must make sure that each candidate is aware of the work you are submitting to Cambridge in their portfolio of evidence. This allows candidates to raise any concerns relating to any particular pieces of evidence, and for you to take these concerns into account before submitting the portfolio to us. If you have told candidates the mark that you have given to a piece of work in the portfolio, you should tell candidates that Cambridge examiners will mark the work again and so the mark you have assigned will not necessarily be the same as the final mark which is assigned by our examiner.

1. Please explain what pieces of work you have used for this syllabus and why you decided to include these in the evidence.

If you have used different pieces of evidence for different candidates, explain how and why this has been done.

If you are completing this form for an A Level syllabus, explain how you have selected both the AS portfolio of evidence and the A2 portfolio of evidence.

The evidence I have used has depended on which entry route the students have used. This is explained below. This year I only had 7 students for Chemistry. There was also a private candidate (0008) who sat the exams at our school.

Candidates 0001, 0002, 0007 and 0008 (private candidate) were all entered for a **linear** entry option. I have therefore collected six pieces of evidence for these candidates, three for AS Level and three for the A2 Level components. All candidates produced the same pieces of evidence:

The AS Level evidence is as follows:

- **Evidence 1 (Paper 2):** This was the June 2022 Cambridge paper 9701/21. I used this paper as evidence as it was a past paper for the revised (2022–2024) syllabus which one of my candidates (005) took when he did AS Level in June 2022. By using the June 2022 question paper I knew that the candidates had not previously attempted this question paper in class and that their evidence would match the requirements of the new syllabus.
- **Evidence 2 (Paper 3):** This was the June Cambridge paper 9701/31 which I used for the same reasons I used the June 2022 Paper 2. I included a paper 3 to make sure that the practical skills assessment objective was covered in the evidence. We have had various times of lockdown during these students' A Level studies where learning has been remote, but we have had students back in school for enough time to be able to use our labs and to teach the

practical skills.

- **Evidence 3 (School-set test):** Our students had been preparing to take AS Level Paper 1 (multiple choice) but multiple-choice questions are not allowed as evidence for the portfolio of evidence route. I therefore created my own test based on a selection of questions from previous past Paper 2s, making sure that the questions were on different content from the content in the Paper 2 used for Evidence 1 and that they still matched the requirements of the new 2022–2024 syllabus. I made sure that I covered as broad a range of syllabus content as I could. The test was 1h15 minutes.

The A2 Level evidence is as follows:

- **Evidence 1 (Paper 4):** This was the Specimen Cambridge paper 9701/04. I used this paper as evidence because I did not have access to other past papers for the revised syllabus and I wanted the evidence produced by the candidates to match the content of the new syllabus as closely as possible.
- **Evidence 2 (Paper 5):** This was the Specimen Cambridge paper 9701/05 which I used for the same reasons I used the Paper 4 Specimen paper.

Evidence 3 (School-set assignment): I had to find another piece of evidence at A Level standard in order to have three pieces of A2 evidence. I set students a problem-solving task which required them to draw on what they had learned during the course and present their answers as a written report. I was careful to make sure that the task was aligned to the requirements of the new Cambridge syllabus. I also gave each of them a viva.

Candidates 0003 and 0005 were both entered for a **staged route** entry option and so want to carry forward their AS Level result from a previous series.

- Candidate 0003 has an AS Level result from November 2021.
- Candidate 0005 has an AS Level result from June 2022.

These candidates have produced the three pieces of A2 Level evidence listed above for their portfolios in the same way as the linear candidates.

Candidates 0004 and 0006 were originally entered for the **'All routes'** A Level but have had their entry changed to a staged route now that they are doing portfolio of evidence. They both have AS Level results from the November 2021 *and* the June 2022 series. These candidates have also produced the three pieces of A2 Level evidence listed above for their portfolios in the same way as the linear candidates.

B Coverage of syllabus content and assessment objectives

We have said that evidence should cover as broad a range as possible of the syllabus content and assessment objectives.

If you are completing this form for an A Level syllabus, explain how you have covered syllabus content and assessment objectives for both the AS portfolio of evidence and the A2 portfolio of evidence.

2. For each candidate's portfolio for this syllabus, are all the major areas of syllabus content included?

Yes No

3. If you have answered No, please explain why the major area of syllabus content is not included.

Please note that, with the new 2022–2024 syllabus I have been particularly careful to make sure that the evidence that I have submitted is aligned to the requirements of the new syllabus.

4. For each candidate's portfolio for this syllabus, are all the assessment objectives included?

Yes No

5. If you have answered No, please explain why the assessment objectives were not included.

Please note that, with the new 2022–2024 syllabus I have been particularly careful to make sure that the evidence that I have submitted is aligned to the requirements of the new syllabus.

6. Have you informed each candidate about the choice of evidence and considered their responses?

Yes No

C Security and authenticity of work

7. You must be able to confirm that the work included in every portfolio is authentic, which means that it is the candidate's own unaided work. You must also be able to confirm that the work included in the portfolio is the candidate's first and only response to the task. Please describe the conditions in which each type of piece of work was completed.

For example, was the work completed entirely in the classroom, was the work completed online under supervision?

All three pieces of AS Level evidence were completed in school and invigilated by me. This was also the case for A2 Level Evidence 2 (Paper 5).

A2 Level Evidence 1 (Paper 4): This was completed at home by the students during a period of lockdown. I required students to switch on their lap-top cameras and I monitored their behaviour remotely during the exams to check for malpractice. I gave students a strict time limit to complete the paper, to reduce the opportunities for malpractice further.

School-set assignment: This was completed remotely when the school was shut during lockdown. I then conducted a viva with each student, including the private candidate, and asked them to talk through their assignment. I asked them questions to probe their understanding and to get them to explain how they had arrived at their answers.

8. How have you authenticated each type of piece of work?

Refer to guidance on authenticity in the [Cambridge Handbook](#) and [on our website](#).

For example, describe the supervision arrangements in place for pieces of work completed in school, or online.

AS Level evidence and A2 Level Evidence 2 (Paper 5) were completed in school, so that I could invigilate.

For the remote exam A2 Level Evidence 1 (Paper 4), I used students' laptop cameras and monitored for malpractice remotely. I also gave students tight time windows to complete the tests. The private candidate completed this test in school under my direct invigilation.

I was able to do individual vivas for the school-set assignment (A2 Level Evidence 3).

D Access arrangements

Questions 9 and 10 are about access arrangements. Refer to the [Cambridge Handbook](#) section 1.3 for guidance about access arrangements.

9. Did any of your candidates require an access arrangement?

Yes No

10. If you answered Yes, please give details of the access arrangements that were required, and how these were delivered.

Thank you for completing the Rationale Document.

You must complete a Rationale Document for each syllabus for which you have been moved to the portfolio of evidence route. You must submit them to us when you submit the portfolios of evidence for marking.

I confirm that the information in this Rationale Document accurately represents how evidence was selected and authenticated.

Name

XXXX

Position

Head of Chemistry

Date

22 September 2022