

## **A Level Chemistry (9701)**

**My candidates did OK last session but I would like advice on how to improve my teaching and where they were losing marks unnecessarily – what help can I get?**

If you want a detailed break down then you can ask for a Group Report on your candidates but this will cost you money and so is only really worth doing if you have serious concerns. If you want more general advice the Report on the Examination gives a wealth of advice on teaching and highlights where candidates have most difficulty, allowing you to concentrate on these areas.

**What equipment should I provide for the practical exam and for general teaching?**

The minimum requirements are given in the syllabus but a more comprehensive guide is given in Cambridge International Examination's booklet 'Planning Science in Secondary Schools', available free from our publications department.

**Is there an option available which doesn't involve any assessment of practical skills?**

No. Practical skills are an integral part of chemistry. A chemistry qualification without a practical component would be a second-rate assessment of the subject, and CIE aims to provide valid qualifications accepted in all areas of the world.

**I am in the middle of setting up the practical examination, and I need to look at the question. Am I allowed to look at a copy of the question paper?**

No. You should have preparing the examination using the Confidential Instructions, which are issued to Centres in confidence well in advance of the examination. These instructions tell you all you need to know about the apparatus requirements, how the apparatus is to be arranged, and what it will be used for. If you have a problem which cannot be resolved using the Confidential Instructions, please telephone our Customer services line on +44 1223 553554 or e-mail International@ucles.org.uk.

**I haven't got the exact equipment specified in the Confidential Instructions, but I do have something similar. Am I allowed to adapt the experiment at all?**

Yes, you are allowed to make minor adaptations to the apparatus, providing that the apparatus still works as specified in the Confidential Instructions. You do not need to seek our approval for these minor adaptations. However, you must report the adaptations in detail to the examiners, by completing the Supervisor's Report form on the back of the Confidential Instructions, which should be enclosed with the candidates' completed scripts. More substantial adaptations, which require changes to the experiment or which cause the apparatus to work in a different way from that described in the Confidential Instructions, are not allowed.

**What help and advice can you give me about health and safety in the laboratory?**

The most important point of first contact is with the organisation responsible for health and safety in schools locally, they must be consulted if you are in any doubt and will advise on any local legal requirements. In addition, there are several useful guides available and many are listed in the booklet 'Planning Science in Secondary Schools'. Most chemical suppliers' catalogues have details of safety requirements for specific chemicals, and 'Hazcards' (published by CLEAPSS Development Group, Brunel University, Uxbridge), 'Hazards in the Chemical Laboratory' (published by the Royal Society of Chemistry, ISBN 0-85186-489-9) and 'Hazard Data Sheets' (published by BDH Laboratory Supplies) are all excellent reference points. An on-line resource is located at: <http://www.labsafety.org/freedocs.htm> .

**Can I just teach through the syllabus in the order it is written?**

The syllabus has been deliberately set out to give a clear and structured teaching order and so yes you can.

**Do I have to?**

No, if you feel that the subjects should be taught in a different order, then teach it in the manner with which you feel most comfortable. For candidates who are sitting the AS and A2 in the same session, some subjects for the A2 may well be better dealt with in the first year.

**Where can I find resources and booklists?**

The back of the syllabus has a list of up-to-date books and some on-line resources.

**What is the difference between the AS and the A2 practical?**

Both involve practical work under exam conditions but the A2 practical will involve more demanding exercises and an element of planning. The specimen papers are a good indication of what is required. The section in the syllabus on practical papers gives a more detailed description of what is required.

**The AS practical in the specimen paper only has a titration - does this mean we don't have to teach qualitative analysis until the second year?**

No – the AS paper may include a quantitative analysis question and/or a qualitative analysis question.

**How many significant figures should my students give in their answers?**

They should use, as a general rule, as many significant figures as given in the data. It is usual to work to 2 or 3 significant figures depending on how accurate the data allows.