Cambridge O Level Chemistry (5070) – a summary of the changes

Video transcript

Carl Saxton:

Welcome to this video on the changes to Cambridge O Level Chemistry. The new syllabus will be released in September 2020 for examination from 2023. My name is Carl Saxton and I am a Development Manager in our Qualifications Development team.

What is changing in this syllabus in terms of the subject content? You can see from this slide that we have added some content and removed some content. We have looked at progression from Cambridge Lower Secondary through to Cambridge International AS & A Level Chemistry. We have removed some learning objectives where there is little or no progression between levels and we have added learning objectives to improve progression.

For all sciences, there will still be four papers. The number of marks and durations will be standardised across the three subjects. Therefore, students who sit all three sciences will have the same assessment experience for each. All changes reflect the best practice in assessment. What does this mean for chemistry? Paper 1, no change. Paper 2, an increase in the number of marks from 75 to 80 and an increase in duration by 15 minutes to 1 hour 45 minutes. Paper 3, no scaling of marks. Paper 4, a reduction to 40 marks. We are proposing to change the structure of this paper to closely mirror Paper 3 to make sure that students who set the alternative to practical have a similar assessment experience to those who sit the practical test. Learners will also get access to the qualitative analysis notes in the alternative to practical paper. So, there will still be four papers with the number of marks and duration standardised across the three subjects. Therefore, students who sit all three will have the same assessment experience for each, which is fair for all science students in each discipline.

We have made a further change to Paper 2. We have removed the optionality. This decision is based on research and on teacher feedback and is the same for each of the sciences. Research suggests that unless there is a very good reason for allowing choice, then it should be avoided for the reasons given here. When we consulted with schools, 52% of respondents supported this decision. Planning questions will now be included consistently in both Paper 3 on Paper 4 from 2023 for each series.

Now I'm going to talk with Hannah Feirn, Product Manager, for the syllabus in our Assessment division. Hannah, can I ask you, what is the biggest change to this syllabus?

Hannah Feirn:

The biggest change is that the content has been updated to improve progression both from Cambridge Lower Secondary to Cambridge O Level but also to Cambridge International AS & A

Level. By doing this the content will be more relevant for today's learners. For example, detail on activation energy has been added to help students be better prepared for further study and the addition of flame tests expands the range of practical skills learners are exposed to. Learning objectives that did not support progression to Cambridge International AS Level topics have been removed. This includes the ozone layer.

Topics and subtopics have been reordered so the subject content is presented coherently and this supports the learner making connections between chemistry ideas and also supports teachers making direct progression links. At first glance, the syllabus might look a little more substantial. There is no increase in the volume of content and we have consulted with teachers to make sure that it can be taught within the recommended guided learning hours. Specifying learning objectives in more detail will make it clearer to you and your learners what should be taught and what will be assessed.

Carl Saxton:

Hannah, what makes this syllabus ideal for today's learners?

Hannah Feirn:

We have received a lot of helpful feedback from schools on the content which informed the changes that we've made. We know from feedback from our regions that students worldwide are interested in topics related to climate change and the use of plastics in society. We have therefore introduced new content on climate change and plastics. We want all our learners to be responsible global citizens that understand and care for the world and future.

We want learners to recognise the positive impact that chemistry can have in delivering solutions to the environmental challenges that we face. So, it's a great area for students to think about, understand better, and engage with. These topics are relevant for students who are going on to study chemistry further, those who will be studying other subjects and those who will be entering employment or vocational training. We are aware that some of these topics will be new for you and that you will require support teaching them. I know that a package of support is being prepared for teachers.

Carl Saxton:

Now I'm going to talk with David Harrison, Development Manager from our Teaching and Learning division about support for this syllabus. David, what support will be available for teachers and when?

David Harrison:

Thank you. My name is David Harrison and I'm managing the development of all the teaching and learning resources supporting this new syllabus. There'll be a comprehensive support package produced which will help teachers deliver an engaging and thorough teaching programme for their learners.

The scheme of work provides a medium-term teaching plan from which detailed lesson plans can be produced. It covers all learning objectives in the syllabus with suggested activities and links to additional resources. New for this edition of the scheme of work are extension activities that are designed to stretch the most able learners and prepare them for Cambridge International AS & A Level study.

Additionally, links to relevant Resource Plus video experiments and teaching packs are included throughout the scheme of work and I'll talk about these in a little while. The scheme of work will be available to download from the School Support Hub in July 2020. Guides for both teachers and learners will also be available to download in July 2020. The Teacher Guide provides extra support for teachers delivering the course.

In particular, it shows how English language learning activities can be integrated into a programme of science teaching, which should better prepare learners for their exams and further study. The Learner Guide gives learners a basic introduction to the syllabus in a very accessible manner. The guide covers information such as what they will study and how they will be examined. It also contains a revision checklist that learners can use to check their understanding and prepare for their exams. For this new syllabus, Cambridge has produced an additional premium resource that hasn't been available for Cambridge O Level Sciences in the past; it's called Resource Plus. Resource Plus is already available to use from the School Support Hub. Resource Plus contains hundreds of specially commissioned experiment videos and associated teaching packs. These contain detailed lesson plans and worksheets designed to encourage the development of practical science skills, and prepare learners for the practical papers, Cambridge International AS & A Level Sciences and higher education study. Even when teachers and their learners don't have access to a lab, Resource Plus can be used to support skills development, so log in and start using Resource Plus today.

After the Specimen Papers are produced in September 2020, the set of Specimen Paper Answers will also be produced. They'll provide example answers for each of the Specimen Paper questions, along with examiner commentaries on the answers and marks. Teachers can use the answers, commentaries and marks to gain a better understanding of the standard required in examinations so that learners can be better prepared when they sit their first exams. Our publishing partner, Hodder, will be publishing endorsed resources for the syllabuses in March 2021. Further details about the textbooks can be found on our public website or the publisher's website.

The last resource to publish from Cambridge's standard support package will be the Example Candidate Responses after the first exams are sat in the summer of 2023. Example Candidate Responses each contain actual student answers to exam questions with a commentary provided by the examiner and a marks breakdown. Cambridge aims to have these available to download from the School Support Hub by the following January 2024, so look out for these documents when they publish. So that summarises the support Cambridge will be providing for this new syllabus. Don't forget to look around the School Support Hub for the many other resources available to use in your teaching and learning. Also, why not take part in the teacher forums, which are also found on the School Support Hub, or even consider entering learners for the science competition? Good luck.

Carl Saxton:

Thank you for watching this video. If you have any questions or feedback you can submit these using the form below. The form is open for two weeks, after which we will publish further information and guidance.