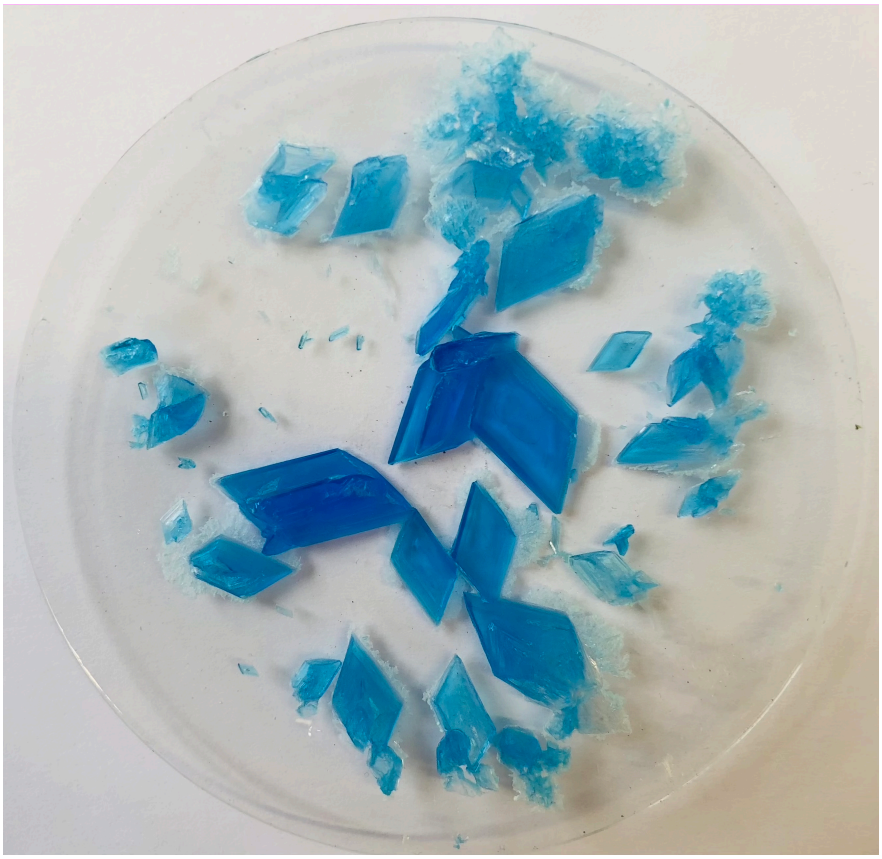
CanDoChem

Chemistry Courses

Expert teaching of Chemistry at KS3 and IGCSE

Live classes & video courses for home educated students

Created and taught by Dr Kate Nickson, MA MSci MEd PhD PGCE (Cantab)



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Introduction to CanDoChem

My vision at CanDoChem is to enable all students to access a top quality Chemistry education, that will engage and enthuse them and help them to realise their potential. Chemistry is a conceptually challenging subject, where specialist teaching makes all the difference in terms of both helping students to flourish and really understand the subject. I am equally passionate about both teaching and Chemistry, and the progress of every student genuinely matters to me. My courses are taught and resourced in such a way to ensure that students with SEND are set up for success and the excellent teaching practices benefit all learners. I liaise closely with families to help ensure the best outcomes for all my students.

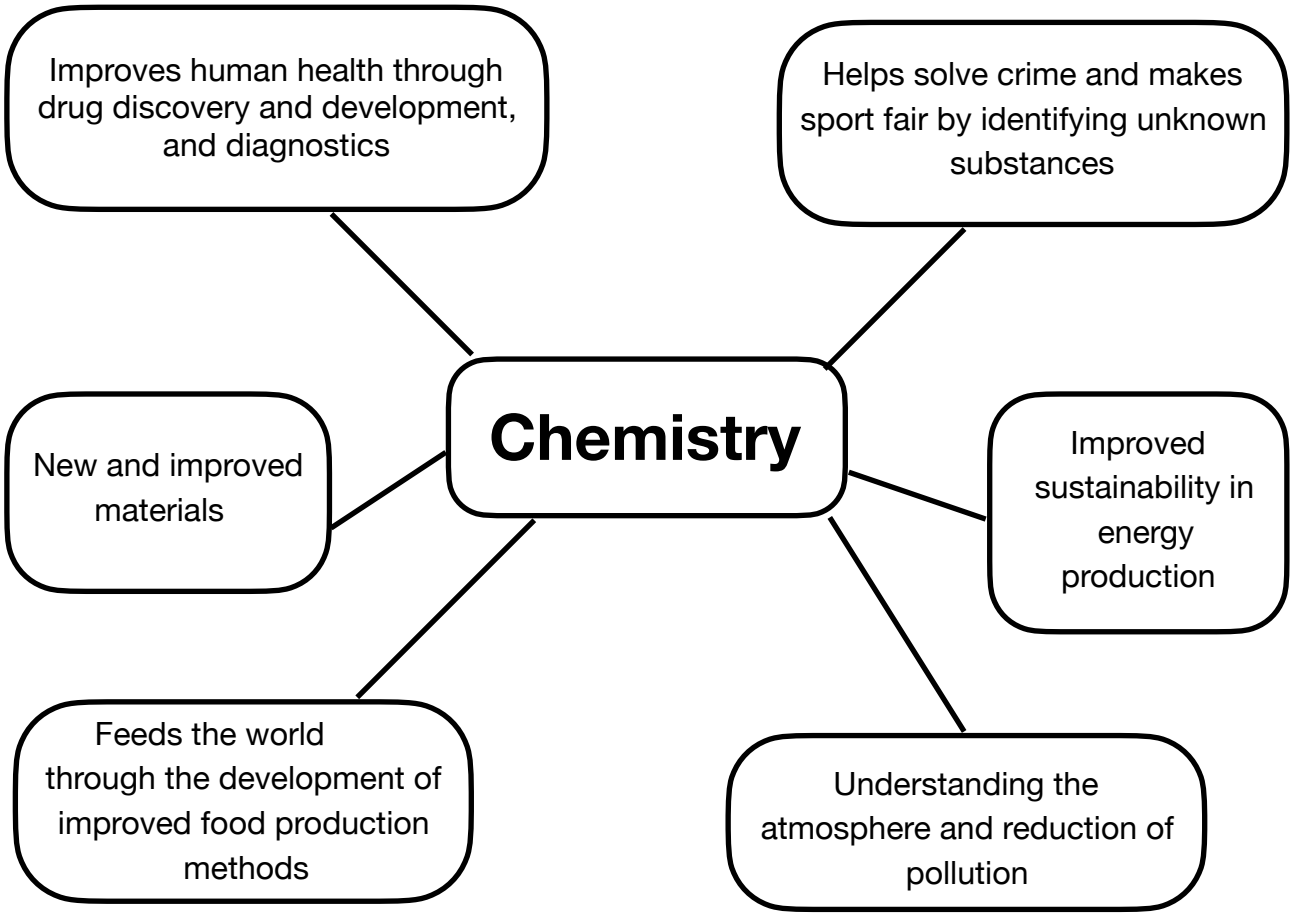
Much of the assessment in both IGCSE and A Level Chemistry involves application of knowledge rather than rote learning. This requires building of skills and regular reinforcement of knowledge, through carefully thought out schemes of learning and well honed explanations with tips and tricks to help with more complex ideas. My courses are aimed at students who are keen to engage with conceptually challenging content, which is taught in an engaging and interactive way.

At CanDoChem I offer a range of courses to suit different learning styles and budgets. These include live classes, video courses and flipped learning courses, which mesh both video learning and live masterclasses together. I provide entire courses at KS3 and IGCSE level, where all resources except a text book are provided. Coming soon there will be the option to dip into top up courses as an alternative, to help with those harder to teach IGCSE aspects, including core practicals and revision. At present, I offer individual tuition at A Level for home educated students, but am working towards the development of an A Level course, which I hope to launch in September 2023.

I set up CanDoChem when I left the classroom three years ago. My first IGCSE group classes for home educated students began in September 2020. In September 2021 I added KS3 group classes and video courses at both KS3 and IGCSE. Currently, I have 40 students in my live classes and another 20 following video courses. My first cohort of 1-year IGCSE students achieved 100% Grade 9 in summer 2021. It is worth mentioning though, that I certainly do not expect all my students to achieve a Grade 9, but I do work hard to stretch all my students with the aim of ensuring everyone achieves the best possible outcome for them.

Why does Chemistry matter?

Chemistry is at the centre of everything and helps us to understand the world around us. Some examples of the importance of Chemistry are shown below.



Why study Chemistry?

For Science enthusiasts, Chemistry is a fascinating subject. It is logical and all about explaining the "why…" questions behind everyday life. Chemistry is more about understanding and application of skills, than rote learning (although as in any subject there is an element of this, particularly in learning the appropriate vocabulary to use in answers.) But beyond the joy of the subject itself, through the study of Chemistry, students will build a range of transferable skills, including problem solving, logical thinking, reasoning, communication skills and numerical confidence. It equips students with skills to understand scientific issues that are in the news and are important for members of society to make informed decisions about, such as climate change, tackling pollution, energy sources and sustainable development.

Chemistry is a subject that essentially covers the same topics from KS3 to A Level, but in increasing levels of depth and with more application of mathematical skills. For this reason, it is crucial to build good foundations, which enable later concepts to be built upon earlier knowledge. For further detail about what is covered in the different courses please see the course pages.

Chemistry is often described as the central science. It connects the biological sciences with the physical sciences and the more applied disciplines, such as medicine and engineering. As such, anyone with aspirations to study any of the sciences at A Level or beyond is well advised to study Chemistry to at least IGCSE level in terms of keeping doors open. Many biological courses at university level require A Level Chemistry. It always appears at the top end of lists of 'facilitating subjects': those subjects that are deemed as being most valuable for entry to higher education.

About me

I am a former Head of Chemistry with fifteen years of teaching experience. I spent the first twelve years teaching in UK schools and for the last three years I have been an independent online Chemistry educator, working with many home educated students. I teach all of the courses offered by CanDoChem and have written / produced the accompanying resources.

Whilst in the classroom, I taught the Edexcel IGCSE Chemistry course for six years, at one of the UK's top independent schools, so I know the specification and exam style inside out. As an extremely experienced A Level Chemistry teacher, I ensure that excellent foundations are set in place for those who wish to go on to study Chemistry at a higher level. This is really important in terms of helping to smooth what can otherwise be a challenging transition from IGCSE to A Level Chemistry. I am also an Edexcel examiner, so have a focus on teaching exam technique, which I embed in the IGCSE course from the start. As a former Head of Chemistry, I am very experienced at taking a specification and putting it into a sensible teaching order and producing high quality resources to accompany it.

I have a PhD in Chemistry from the University of Cambridge, so am (mostly) able to answer the challenging questions that my students like to throw at me! I also have a PGCE and a Masters in Education, from Cambridge. My educational expertise means that I am a very reflective teacher, who excels in simplifying concepts and building understanding in a step wise manner, which helps all students. My years in the classroom have given me a lot of experience in supporting students with SEND. I am adept at stretching students outside the specification, answering their questions and preparing them in a way that will set them up for further study in scientific disciplines should they choose this route. As well as being able to inspire the high fliers, it is worth mentioning that for many of my teaching years I took the lower (I)GCSE sets because I am patient and good at nurturing students. I believe in the importance of strong relationships with home and regular contact, as learning is a team effort. As a parent myself, I see each child as an individual and will do my best to help your child thrive.

KS3 Chemistry Courses

KS3 course information

It is not essential to study KS3 Chemistry in order to study IGCSE, but it helps to put good foundations in place that will make the transition to IGCSE learning less challenging. The KS3 course that I teach is very much a pre-IGCSE course, which does aim to stretch and challenge and push beyond the confines of a traditional KS3 course, where appropriate. Students should also be studying KS3 Maths alongside Chemistry, as there is a significant mathematical component to the subject (20% of the marks at IGCSE), so it is important that we include practice of appropriate mathematical skills within the KS3 course to build the necessary skills. I have Year 6 equivalent students taking KS3 Chemistry through to those in Year 9. For younger students it is worth bearing in mind where this course will lead to in terms of progression to IGCSE learning, as I would not generally recommend starting this before Year 9 equivalent level. However, I am now offering an extended 2-year IGCSE course aiming at the November sitting (E.g. starting September 2022 aiming at November 2024) to cater for my slightly younger students, who will benefit from extra maturity and more chance to develop their Maths skills. So there is some flexibility in this for more advanced students.

KS3 Chemistry courses in schools are often heavily practically based. In designing this course, I have thought carefully about which aspects of typical KS3 courses are most important to teach in terms of smooth progression to IGCSE Chemistry, but also which topics lend themselves to online teaching, without being able to have a practical focus to classes. Without the limitations of a school curriculum or working to an exam, there has been the freedom to create an innovative course that also embeds the key skills needed for later success at IGCSE. It is a course where the development of skills is as important as the coverage of content. To support this, there are no topic tests, so we really can focus on the joy of learning (before things get rather more serious at IGCSE). I have also sought to ensue that we cover environmental issues, which the IGCSE course is, in my opinion, a bit light on, in comparison to other GCSE specifications. Understanding some of the big issues that students are going to need to contribute to over the coming years, should be a key feature of a Science education. These include, climate change, carbon footprint and life cycle assessment, pollution and acid rain, waste water treatment and water purification.

The KS3 course aims to build engagement and enthusiasm for Chemistry as well as academically rigorous foundations to help with the transition to IGCSE studies. I regularly include live demonstrations in my lessons to help give that sense of wonder that hooks students into a love of Science. I also include short videos to illustrate more fiery practicals that I can't do from my home!

Optional homework tasks are set each week. Where possible, these have a practical focus, but also seek to build skills in other areas. I take an over-arching view of the course and aim to build different key skills within it, which reach beyond the Chemistry curriculum alone. These include mathematical skills, investigative skills, data analysis, research skills, scientific writing and peer assessment.

Topics covered at KS3 include: practical Chemistry (building investigative skills); states of matter; elements, mixtures and compounds; separating mixtures; acids and bases; metals; everyday Chemistry; earth science.

A sample video course class to give you an idea of my teaching style and a typical lesson can be sampled by joining this Google Classroom:
https://classroom.google.com/c/NDI3MzA4MzkxNzMy?cjc=eymn4u6

KS3 course options

I offer two options for the KS3 Chemistry course: a live small group class and a video course.

Both courses include:

- Term time only weekly classes, over approximately 35 weeks of the year.

- Workbook style notes for each session. These ensure students have notes to refer back to, without them needing to do significant amounts of writing. This helps to maintain a good pace within lessons and supports students with SEND. The notes also encourage engagement in activities, as they have space for answers.

- Follow up work for each class: sometimes suggested practical work, quizzes, research tasks or a few questions to answer. Mark schemes will be provided where appropriate. Completion of these tasks is optional at KS3, although I do recommend engaging with them to help consolidate understanding and experience the joy of practical work.

- A half termly longer assessment to enable a more in-depth piece of work to be carried out. Note, this is not a test!

Types of KS3 courses explained in detail

KS3 Live Classes

- The live classes contain a maximum of 8 students. Typically, I find class numbers do tend to end up slightly lower, e.g. at around 6 students. I find this is a good number for a class, in terms of giving us a range of ideas for discussions, but small enough for all students to participate.

- Classes are very interactive, as Chemistry is a subject where students must build their own understanding. I do ask that in the classes, students should have their cameras on and to be prepared to speak. I often find that my students like to type extra ideas into the chat box as well, and this is great as it keeps them even more involved in the class. If you don't want this level of engagement, then why not consider the Video Course.

- Classes take place via Zoom, using a whiteboard on a shared screen. We also use Kahoot for quizzes and Classkick to enable me to see their individual work on the screen. Links for these are provided in classes when needed.

- Copies of the whiteboard notes are available after each session in case students run out of time on an activity and want to return to it later.

- A stand alone video version of each class is provided covering similar activities. This enables easy and effective catch up if students miss a class, helping to keep them on track.

- I encourage students to hand in the longer half-termly assessments to me for marking and feedback. On shorter weekly follow up work, they can always send me a message via the classroom if they have any queries.

- I provide regular written feedback to parents via email, both on the half-termly assessments, but also when we do quizzes in class and of course, if I ever have any concerns. I encourage parents to contact me if they have any questions or concerns from their end.

- This course costs £15 per class.

KS3 Video Course

- At present this runs via Google Classroom, but I will be swapping this across to a course hosting programme before the next academic year. This will make it easier for students to work through the course at their own pace and also for me to build in regular quizzes to provide feedback.

- You can choose to either buy the video course as a self-paced course with a single payment, which gives access to all the classes at once, or to pay by instalments, with a weekly class released in term time.

- Each class contains a video lesson, which is designed to take approximately an hour. This will vary for individual students, depending on how long the activities take them. The classes are interactive and students are instructed to pause the video and try activities during the class. These activities are contained within the class notes, which they should print off in advance of each class, or complete electronically if they prefer. There are then optional self-marked consolidation tasks for follow up work.

- This course costs £5.50 per class.

KS3 course reviews

"My daughter absolutely loves Kate's KS3 classes, they are genuinely the highlight of her week, and of all the teachers we have come across throughout our home education journey, Kate is, by far and away, the best we have encountered. Her attention to detail, meticulous planning and provision of high-quality resources (including practical demonstration videos), together with Kate's wealth of experience, evidently high level of expertise, enthusiasm, sense of humour and genuine concern for her students means my daughter has felt inspired and supported throughout the course so far and cannot wait to move on to studying Chemistry at IGCSE level and beyond. Thank you so much Kate!"
V.C., April 2022

"Kate is an absolute treasure and we feel very lucky to have found her. Her teaching style is very clear, she takes huge trouble to ensure all the students enjoy Chemistry, and is very responsive to emails and queries. I really don't know how we would have managed Chemistry without her. Thank you Kate."
S.D., April 2022

"We have found Kate to be highly knowledgeable and effective at delivering a really engaging Chemistry course at both KS3 and IGCSE levels. The sessions have been fully interactive and enjoyable for the kids, and Kate is careful to ensure the whole class understands new topics. Homework is marked very quickly, with lots of feedback and encouragement, including practical experiments we have been able to do at home in the kitchen with the kids. Classes are kept to a small size. Very highly recommended!"
C.P., April 2022

Edexcel IGCSE Chemistry Course

IGCSE course information

Specification details
Pearson International GCSE in Chemistry (4CH1)

Prior knowledge and suitability
It is not essential to study KS3 Chemistry prior to taking IGCSE Chemistry, as I do cover all concepts needed. Those students who have not studied Chemistry previously, will need to be prepared to do a bit more work between classes though, as they will have more new ideas to take on board, which will make it a steeper learning curve.

Students should be working towards their (I)GCSE Maths alongside their Chemistry studies. All (I)GCSE Chemistry specifications have become more mathematical in recent years and at least 20% of the marks in the current exams require use of mathematical skills. **Students should not enrol in a course aiming at them sitting their IGCSE Chemistry exams substantially ahead of (I)GCSE Maths**. If students are not studying at a similar level in their maths, they will struggle with the more mathematical aspects of the Chemistry course. Given the nature of Chemistry, where we build on earlier knowledge, they do need to understand work as we cover it to enable them to then access later ideas, otherwise they end up out of their depth, which is a situation that I like to avoid for everyone's sake!

I have designed a teaching order for the 2-year Chemistry IGCSE course, which leaves some of the more complex topics until later in the course when students have built confidence and are that bit more mature. This has always been standard practice in the schools in which I have taught and works really well. So please don't worry unduly about the emphasis on the Maths side of the course, but I do want to avoid the situation where students struggle because they are aiming at taking their Maths exams a year after their Chemistry exams.

There is no shying away from the fact that Chemistry is a conceptually challenging subject, and as such it is only fair to point out that it is not an appropriate subject choice for everyone! Given the mathematical content, I do recommend as a guide that students should be aiming at a Grade 7 minimum in (I)GCSE Maths, in order to access the Chemistry course. Most students will find Chemistry difficult at some point and for many of my students it is the first time that they have encountered this level of challenge. I work with families when difficulties hit, to help students get on track, with advice and encouragement about appropriate study skills and strategies to help engage with a difficult subject. On the plus side, this builds resilience and study skills that will stand

them in good stead across all their subjects. Students who will flourish on my courses, do need to be prepared for a challenge though and to seek help when needed.

I strongly recommend that it is best if students in general are at least Year 10 equivalent when they aim to sit their IGCSE Chemistry exams - I do not generally recommend starting a 2-year course before they are Year 9 equivalent. However, I have now introduced a slightly extended 2-year course aiming at the November sitting rather than June (i.e. start in September 2022 and sit the exams in November 2024) for those who are that bit younger but keen to take the subject. One of the strengths of home education is the ability to spread out when you take subjects, but given the complexities of IGCSE Chemistry, students are generally better able to access the subject content and perform at their best in the exams when they have that extra maturity, which comes with age. If planning to spread out subjects over 2-3 years, Chemistry is one that does usually benefit from coming later on in the process. You are welcome to pass your details to me to keep in touch about courses for the following year, as I am already running an expression of interest list for a September 2023 start date!

IGCSE content and assessment

As part of the Edexcel IGCSE, students study four areas of Chemistry: Principles of Chemistry, Inorganic Chemistry, Physical Chemistry and Organic Chemistry. For a detailed break down of content I recommend looking at the specification.

As well as the theory, and the 20% mathematical content, students have to learn about core practicals. A minimum of 15% of the total marks in the exam must be on questions related to practical work. The questions do not have to be specific to the core practicals but can be on other practicals related to the core practicals, so a detailed knowledge of the course and exam papers is invaluable in teaching this aspect effectively. In order to help students engage with and understand the practical content in the detail required, I have produced videos of all of the core practicals and others for which knowledge is frequently required. These take students through the key explanations, along with follow up questions and exemplar data to analyse where appropriate, to build the essential practical understanding. I also link typical exam questions to each core practical and ensure that practical questions are embedded in end of topic exam questions and tests, to build the necessary skills to answer questions around this side of the course effectively.

Students sit two examinations for the IGCSE - a 2 hour Paper 1 and a 75 minute Paper 2. Paper 1 is the same as that sat for Combined Science, so covers aspects of all of the four areas of Chemistry. Paper 2 can examine any aspect of the specification. Much of the Paper 2 only content is in the form of relatively minor additions to the Paper 1 content, but there are some additional topics, which tend to be more complex. I teach all of the Paper 1 content first, along with the minor additions of Paper 2 content, before returning to the more complex stand-alone Paper 2 topics, as I find this the most effective way to teach the course.

From 2022, examinations will be offered in the summer (May / June) and November. My standard 2-year courses aim at the summer examination, with the 1-year and extended 2-year aiming at November. The November sitting does still allow for a delay if any students in the standard 2-year classes do not feel ready for the summer sitting and want a more gentle build up to exam readiness.

IGCSE courses offered

- 1-year IGCSE Flipped Learning Course, starting in June 2022, aiming at summer 2023
- 2-year IGCSE Live Class, starting in September 2022, aiming at summer 2024
- 2-year IGCSE Flipped Learning Course, starting in September 2022, aiming at summer 2024
- Video Course - self paced, 1-year and 2-year versions available

All courses are scheduled to finish by the end of April in the exam year, before the May / June exam sitting. During May and early June, optional past paper review sessions are offered, to enable students to benefit from past paper practice. Families can opt into as many or few of these as they want, enabling individual requirements around different exam schedules to be met.

A sample video course class to give you an idea of my teaching style and a typical lesson can be sampled by joining this Google Classroom:
https://classroom.google.com/c/NDI3MzA4MzkxNzMy?cjc=eymn4u6

All IGCSE courses include

- Workbook style notes for each session, which include key notes and explanations, exemplar questions that act as worked examples and topic specific exam questions. Students use these during the course of each lesson, adding information and answers to questions. The format of the notes ensures students have high quality notes to refer back to, without them needing to do significant amounts of writing, as well as examples of how to apply their knowledge to answer typical questions. I find they also help students to stay focussed in lessons as they have clear tasks to complete. They have been a particular help for my SEND students, but all students benefit from them.

- Self-marked consolidation work set after each class. This typically consists of worksheet style questions, exam questions and for live class students, working through practical videos when appropriate (these are already built into the video course). Please note the consolidation work is an essential part of the course, to enable students to develop understanding and embed learning. They cannot get through IGCSE Chemistry on the lessons alone, as without practice they will not become confident in the skills and knowledge required.

- Regular tests (8 total - approximately half termly on 2-year courses and more frequently for 1-year). These are based on past exam questions and help to ensure essential learning is done throughout the course and they help to build exam technique. These are marked by me with written feedback, unless on the Video Course.

- Videos of all the core practicals (and extras) are provided, along with follow up questions and exemplar data to analyse, where appropriate, to build the essential practical understanding.

- Two mock exams - one each of Paper 1 and Paper 2. Marking of these with detailed feedback is included in all courses, except the Video Course. Families using the Video Course can book into mock sessions as an add-on, if they wish to benefit from marking and feedback.

Types of IGCSE courses explained in detail

IGCSE Live Classes (2-year or extended 2-year only)

- Classes are one hour in length and take place in term time only (finishing at the end of April in the second year).

- The standard classes contain a maximum of 8 students, but typically, class numbers do tend to be slightly lower once numbers stabilise and you can expect them to end up at around 6 students. I find this is a good number for a class, in terms of giving us a range of ideas for discussions, but small enough for all students to participate.

- If you want a smaller class - if there is sufficient demand I will offer an IGCSE XS Live Class. This will have a maximum of 5 students, with the aim of stabilising at around 4.

- Classes are very interactive, as Chemistry is a subject where students must build their own understanding. I do ask that in the classes, students should have their cameras on and to be prepared to speak. I often find that my students like to type extra ideas into the chat box as well, and this is great as it keeps them even more involved in the class. If this level of interaction is unlikely to suit your child, why not consider the Flipped Learning Course or Video Course.

- Classes take place via Zoom, using a whiteboard on a shared screen. We also use Kahoot for quizzes and Classkick to enable me to see their individual work on the screen. Links for these are provided in classes when needed.

- Copies of the whiteboard notes are available after each session in case students run out of time on an activity and want to return to it later.

- A video version of each class is provided covering similar learning activities. As these have been especially recorded to work as part of a video course, they are much more effective than simply a recording of the live class. They enable easy and effective catch up if students miss a class, or the opportunity to revisit tricky concepts, helping to keep them on track.

- Topic tests are marked by me with detailed written feedback, enabling further learning.

- Consolidation work is set following each lesson. This is self-marked, but students can access help with a message via the classroom or by coming to a drop-in help session.

- Drop-in help sessions take place twice weekly in scheduled time slots and enable all students to access individual help if needed e.g. to review a tricky concept that they aren't sure on, or to ask for help with a specific homework question.

- I provide regular written feedback to parents via email, both on the half-termly assessments, but also when we do quizzes in class and of course, if I ever have any concerns. I encourage parents to contact me if they have any questions or concerns from their end as establishing good communication is key to students succeeding.

- This course costs £17.50 per class (£25 for the XS class).

IGCSE Flipped Learning Course (1 or 2-year versions)

- This is a new course format for this coming academic year. The concept behind it is that students work through the learning of ideas via video classes at a time and pace that suits them and then use the teacher-contact time to address problems and try extra questions to deepen understanding.

- This is a 68 class course, comprised of 58 video lessons with follow up work, 8 end of topic tests and 2 mock exams. Please note in the sessions when topic tests or mock exams are set, these are instead of a video lesson to allow time for preparation and sitting of the paper.

- This course brings together my video course and the interactive benefits of an additional live masterclass session after every two classes (weekly for 1-year, fortnightly for 2-year). This gives more directed learning hours overall, compared to both the Video Course and Live Classes, while keeping the course cost effective by making use of pre-recorded elements, rather than being all live teaching. It also enables the initial learning to be done at a time and pace that suits each individual student, which allows students to complete all activities, benefitting their learning.

- Students following the 1-year course are set two classes per week, with self-marked follow up work for each (unless it is a test, in which case the work comes first) with one live masterclass per week.

- Students following the 2-year course are set one class per week, with self-marked follow up work (unless it is a test, in which case the work comes first) with one live masterclass per fortnight.

- The live masterclass sessions will be focussed on further deepening of understanding, application of learning and a chance to ask for help / clarify understanding when needed. Please note these only take place as a live session as the nature of how they work does not lend itself to recorded catch up.

- A typical live masterclass session will involve a question and answer session to address any general problems. Students will answer questions on “Classkick”, which allows me to see individual student answers and provide individual feedback, while they can work at a pace that is appropriate for them. On Classkick they can type their answers or write with a pencil e.g. on a drawing tablet. We will also do regular Kahoot quizzes, which I use as a learning activity as well as providing a snapshot of knowledge / understanding to enable feedback to parents.

- Topic tests are marked by me with detailed written feedback, enabling further learning.

- Consolidation work is set following each lesson. This is self-marked, but students can access help with a message via the classroom or by coming to a drop-in help session.

- Drop-in help sessions take place twice weekly in scheduled time slots and enable all students to access individual help if needed e.g. to review a tricky concept that they aren’t sure on or to ask for help with a specific homework question.

- I provide regular written feedback to parents via email, both on the half-termly assessments, but also when we do quizzes in the masterclass and of course, if I ever have any concerns. I encourage parents to contact me if they have any questions or concerns from their end as establishing good communication is key to students succeeding.

- This course costs £12.50 per class (note the masterclasses are included in the class price i.e. 1-year course - £25 per week, 2-year course - £12.50 per week).

IGCSE Video Courses

- At present these run via Google Classroom, but I will be swapping them across to a course hosting programme before the next academic year. This will make it easier for students to work through the course at their own pace and also for me to build in regular quizzes to provide instant feedback.

- You can choose to either buy the video course as a self-paced course with a single payment, which gives access to all the classes at once, or to pay by instalments, with classes drip-fed over 1 or 2 years.

- The course contains 68 classes, which are comprised of 58 video lessons with follow up work, 8 end of topic tests and 2 mock exams.

- Each video lesson is designed to take approximately an hour, although there will be some variation in length in order to give sensible topic splits. The lessons are interactive and students are instructed to pause the video and try activities before being given an explanation of the answers. These activities are contained within the class notes, which they should print off in advance of each class, or complete electronically if they prefer.

- Each video lesson is accompanied by self-marked consolidation tasks for follow up work.

- The video course enables learning to be done at a time and pace that suits each individual student, which allows students to complete all activities, benefitting their learning.

- Accompanying topic tests and mock exams are self-marked.

- This course costs £6.50 per class

IGCSE course comparison

Content	Video Course	Flipped Learning Course	Live Classes
Workbook style notes	Y	Y	Y
Stand alone lesson videos	Y	Y	Y
Core-practical videos	Y	Y	Y
Self-marked consolidation work	Y	Y	Y
Mini quizzes	Y		
Self-marked topic tests	Y		
Teacher marked topic tests with feedback		Y	Y
Masterclass live learning		Y	
Live classes			Y
Drop-in help sessions and messaging		Y	Y

Key benefits of each IGCSE course

Video Course	Flipped Learning	Live Class
Flexibility of studying whenever suits your schedule and at a pace that suits each individual.	Flexibility of studying whenever suits your schedule and at a pace that suits each individual.	Personalised approach, with opportunity to ask questions as concepts are taught. Activities and timings tweaked to suit individual needs within the class.
Contains the same top quality resources as the other classes.	Still maintains a sense of community with the masterclasses	Real sense of community between the students.
If you opt for a 1-year or 2-year version, the regular drip-feed of classes helps provide structure and keeps momentum going.	Helps keep momentum going with the regular masterclasses and assessment.	Helps keep momentum going with the regular classes and assessment.
Built in quizzes for quick progress checks throughout the course.	Ability to see students' work during masterclass sessions, as well as regular Kahoot quizzes, enables individual feedback and a chance to identify problem areas.	Use of directed questions to individuals, as well as regular Kahoot quizzes ensures students are keen to do their best on activities.
Access to tests and mark schemes helps to develop exam technique and enables detailed progress checks.	Regular feedback from tests / quizzes means families have a clear awareness of performance and where improvements are needed throughout the course.	Regular feedback from tests / quizzes means families have a clear awareness of performance and where improvements are needed throughout the course.
	Individual help available through drop-in help sessions.	Individual help available through drop-in help sessions.

1-year vs 2-year IGCSE courses

I would generally recommend a 2-year course as the better option for the majority of students. Given the level of skills and the application of knowledge that is needed to achieve success in Chemistry, I find that students benefit from spreading this out over a longer period of time. Studying over two years gives students more time to consolidate their understanding and build exam technique. It also ensures that they have time to fully get to grips with the content of each lesson, before moving onto the next one. This is really important, as we need earlier knowledge to be secure in Chemistry to facilitate building new ideas on it, otherwise students can rapidly get out of their depth in the subject.

The 1-year course is most appropriate for older students who are in need of a course to facilitate doing Chemistry within a year. Students should be at least Y10 equivalent, ideally Y11 equivalent to take this course. For this course, students must be prepared to devote at least 5 hours a week to Chemistry learning - 2 hours of recorded classes, 2 hours of consolidation work and self-led further work, and another 1 hour live masterclass session. I find that students often underestimate how much work is needed to build their understanding of Chemistry to the level required in order to target the top grades within a year. Most students on this course benefit from someone at home being closely involved, to help them get a sensible schedule in place and then checking that they are keeping up with the work.

I am tweaking the delivery of the 1-year course for this coming year, with an earlier start date to give us a head start of half a term before the summer and making it a flipped learning course rather than only live classes. This is in part to keep it cost effective, but also to increase the directed learning time, helping students develop the necessary skills more effectively in a short space of time.

IGCSE course start dates and exam dates

Course	Start date	Exam date
1-year Flipped Learning course	September 2022	November 2023
All 2-year courses	September 2022	May / June 2024
Extended 2-year	September 2022	November 2024

IGCSE teaching order

Term	Two-year IGCSE	One-year IGCSE
Autumn Half Term 1	Principles of Chemistry: fundamentals, states of matter, compounds and mixtures.	Principles of Chemistry: fundamentals, states of matter, elements, compounds and mixtures, atomic structure, Periodic Table, structure and bonding part I.
Autumn Half Term 2	Principles of Chemistry: atomic structure, Periodic Table, structure and bonding part I.	Principles of Chemistry: structure and bonding part II, moles calculations. Organic Chemistry: introduction, crude oil, alkanes.
Spring Half Term 1	Principles of Chemistry: structure and bonding part I. Organic Chemistry: introduction, crude oil, alkanes.	Organic Chemistry: alkenes and addition polymers. Inorganic Chemistry: Groups 1 and 7, atmospheric, acids, bases and salts.
Spring Half Term 2	Organic Chemistry: alkenes and addition polymers. Inorganic Chemistry: Groups 1 and 7.	Inorganic Chemistry: reactivity series, chemical tests. Physical Chemistry: energetics, rates of reaction, reversible reactions.
Summer Half Term 1	Inorganic Chemistry: chemistry of the atmosphere, acids, bases and salts.	Paper 2 top up: Part I
Summer Half Term 2	Inorganic Chemistry: reactivity series, chemical tests.	Paper 2 top up: Part II
Autumn Half Term 1	Principles of Chemistry: moles calculations.	Revision and past papers
Autumn Half Term 2	Physical Chemistry: energetics, rates of reaction	N/A
Spring Half Term 1	Paper 2 top up: Part 1.	N/A
Spring Half Term 2	Paper 2 top up: Part 2.	N/A
Summer Half Term 1	Optional past paper sessions	N/A

IGCSE course reviews

Live Classes

“I feel very lucky to have found Kate at CanDoChem. She is an expert and obviously knows her subject inside out, making top grades accessible to home ed students. Her lessons are enjoyable and very well planned. All resources are available online and everything about the course is incredibly well organised. She cares about her students and notices if one is struggling or having a tough day and is very quick to feedback to parents. I could not recommend her highly enough.”
S.H., April 2022

“We have found Kate to be highly knowledgeable and effective at delivering a really engaging Chemistry course at both KS3 and IGCSE levels. The sessions have been fully interactive and enjoyable for the kids, and Kate is careful to ensure the whole class understands new topics. Homework is marked very quickly, with lots of feedback and encouragement, including practical experiments we have been able to do at home in the kitchen with the kids. Classes are kept to a small size. Very highly recommended!”
C.P., April 2022

“My daughter really enjoys Kate’s lessons, the small group size is great for her concentration and the lessons are both interesting and fun. I get regular feedback from Kate about how my daughter is doing, and the half termly tests are also very helpful. Really happy that we found Kate, I would thoroughly recommend her!”
K.R., April 2022

“We pay a bit more for Kate's classes, but the standard of teaching and resources is very high and we get much more feedback. It's very well structured. Our son is keen on Chemistry and one year in we are finding that this is teaching him how to work for an exam as well as the subject. Kate’s expectations are high, and she supports the students to do well.”
S.P., April 2022

“I would highly recommend CanDoChem for IGCSE Chemistry. My child enjoys the classes, the structure and the teaching is of an excellent standard with plenty of support available.”
C.W., April 2022

“My daughter Ruby struggled with Chemistry, but very soon after commencing online classes with Kate, it began to fall into place! Kate is a great teacher and her enthusiasm and knowledge has helped Ruby gain a much better understanding of the subject.”
K.A. April 2022

"I have to thank you for having the course incredibly well structured. Your clear and precise explanations make it easy for Finn to follow the 1 year course (considering he had virtually no previous knowledge) and he knows what is expected to get the high grades he is aiming for. Your immediate feedback and clear instructions on how to improve make it a pleasure for me as a parent who has very little knowledge, as it means I can leave it to your teaching and Finn revising to achieve what he wants. It is a real pleasure to have you so passionate about your subject and being such a great teacher. Thanks so much, wish there were more like you out there."
A.R. March 2021

"Kate is, without doubt, the best Science teacher/tutor I have come across. She has become the bar with which I now compare others. Kate combines subject mastery with teaching brilliance. She is a rare find."
L.E. January 2021

"We are big fans of Dr Kate's Home Ed IGCSE Chemistry online group classes! My son was a beginner at Chemistry (albeit with a good general Science knowledge) but he is motivated to rise to the high standards that Dr Kate sets in the class as a result of the meticulous planning, personal attention, gamification (my son loves the Chemistry Kahoots) she provides and through creating an encouraging and friendly environment.
Regular homework and tests ensure that the skills the students learn in this tricky subject are consolidated. While reviewing one of the class recordings, I found myself following on for a good 15 mins re-learning atomic structure as Dr Kate broke down the topic into manageable chunks, while gently checking the students' understanding as she went along.
As an examiner, Dr Kate encourages the depth and precision required to answer questions to exam standards. Exam paper questions have been introduced from the beginning and students are shown how to answer in a way that gains full marks.
The small size of the groups is a huge bonus; the students can have their camera on and use the mic to answer questions, which makes the class a highly interactive experience
My son takes / has taken quite a few online group classes and this is undoubtedly one of the best we have experienced so far."
C.M. January 2021

"My son is taking the 1 year intensive IGCSE class with Kate and I can say she has been brilliant all the way through. His confidence and enthusiasm for the subject has grown week by week and he now feels, with her help, he can achieve a top grade. The small class size offers just the right balance of personalised support and friendly interaction. Kate also offers extra drop in sessions for any lingering questions and excellent feedback for homework. I cannot recommend her highly enough."
S. M. January 2021

"I'd just like to say thanks for all the encouragement, support and amazing teaching. I now find Chemistry an engaging and interesting subject to learn and am aiming for a top grade."
J.M. January 2021

"My daughter was keen to study IGCSE Chemistry in one year and so she started the course. Very soon it became clear that the course was moving too quickly for her. After speaking with Kate, we all decided to change to the two-year course. This pace is perfect for her, she's really enjoying it and gaining confidence. The majority of homework is self-marked and Kate is always available to answer questions. Exams are set at the end of each topic; Kate marks them and provides very useful feedback.
I could not recommend Chemistry with Kate more highly. She is clearly passionate about her subject and provides interesting and stimulating lessons with positive feedback."
C.C. February 2021

Video Course
"CanDoChem is the best provider of science classes for home educators out there (and I've sampled quite a few). New concepts are introduced gradually and with plenty of reinforcement and encouragement. Class hand-outs have just the right amount of information and are great for revision. A lot of work has clearly gone into delivering a logically planned course, and it really shows!"
J.R., April 2022

"Learning with Kate is an absolute pleasure and the right solution for my daughter. Her video lessons are calm, easy to understand, interesting, very well structured and the notes/handouts and homework very clear and easy to follow."
G.WG, April 2022

Course costs

Course	Cost per class
KS3 Video Course	£5.50
KS3 Live Class	£12.50
IGCSE Video Course	£6.50
IGCSE Flipped Learning Course	£12.50*
IGCSE 2-year Live Class	£17.50
IGCSE 2-year XS Live Class	£25

*Note - the masterclasses are not charged as a separate class i.e. 1-year course has 2 classes per week - £25 per week; 2-year course has 1 class per week - £12.50 per week.

Please note that I endeavour to provide courses to support all budgets and levels of support. My courses do cost more than many home education courses, but I bring a wealth of experience and expertise to them and I believe that the level of detail in the course and the quality of the resources is pretty unique in a home education course. Producing the accompanying resources has been (and still is) a mammoth task, from writing class activities, notes and consolidation tasks for each lesson, putting together topic specific exam question sets, writing topic tests, hiring labs and filming all the practicals, to video production and editing. There are also subscriptions to take into account, which increase the quality and interactivity of the courses. I also spend a lot of time liaising with families and giving feedback / advice for those students who follow courses with live classes.

Bursary scheme

In order to ensure that all students are able to access Chemistry teaching, in these difficult financial times, I am pleased to be able to offer a bursary scheme for my Video Courses, offering fully funded places. If you have a child who would love to study Chemistry, but you cannot afford the cost of the course, then please complete the electronic form linked below.

Bursary application form: https://forms.gle/1HbQxRfWFCDaUe3r6

Term dates 2022-23

Autumn 1 6/9/22 - 21/10/22
Autumn 2 31/10/22 - 16/12/22
Spring 1 4/1/23 - 17/2/23
Spring 2 27/2/23 - 31/3/23
Summer 1 17/4/23 - 26/5/23
Summer 2 5/6/23 - 21/7/23

Please note that these dates may be subject to minor changes. I find that we often have a difference in exact holiday dates between different regions of the UK / other countries. I have to follow the dates which mesh with those of my own young children. But please don't worry if you want to follow slightly different dates, or are taking advantage of being able to holiday outside of peak school holiday season - this is the benefit of having the video classes for catch up. (Although I have had students signing into my classes from different countries / camper vans / ferries and even car parks with a good internet signal because they don't want to miss the class!)

Please note exam classes finish teaching at the end of April, with the option to book into past paper preparation sessions following that, in the approach to exams. IGCSE 1-year classes start in June of the summer before the exam date.

Class times

KS3 Live Classes - Monday 1.45 pm

IGCSE 1-year Flipped Learning - Thurs 1.45 pm (weekly masterclass)

IGCSE 2-year Live Class - Tuesday 9.15 am / Wednesday 1.45 pm

IGCSE 2-year Flipped Learning - Tuesday 10.30 am (fortnightly masterclass)

IGCSE 2-year XS Live Class - not yet timetabled - subject to demand

Drop-in help sessions - Monday 11.45 am - 12.15 / Wednesday 11.45 am - 12.15

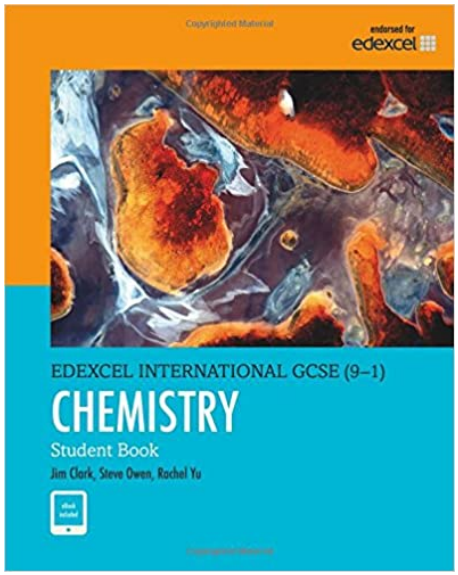
Please note that there is some flexibility in the class times (subject to demand), so do please let me know on the booking form / drop me an email if you would like an alternative that is not currently on offer and I will see what I can do.

Text book recommendations

IGCSE:

I recommend buying the text book below. Whilst not essential, it is a very good source of extra information and practice questions, which I recommend as optional further consolidation work. Please note, the text book comes with a single-use code that you can use to access answers. For this reason, I do recommend buying a new book, as with a second hand one you will not have access to the answers if the code has already been used.

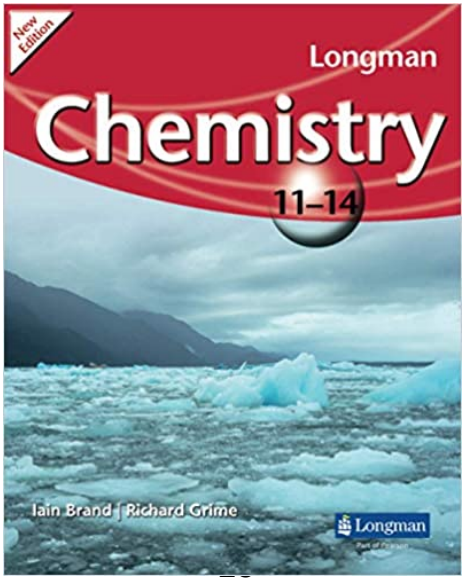
Pearson Edexcel International GCSE (9-1) Chemistry Student Book – Jim Clark (June 2017)



KS3:

A text book for KS3 Chemistry is very much optional. I am not precisely following a set course, so there will not be an exact overlap. But should you wish to purchase a book to provide further information etc., then I recommend this book:

Longman Chemistry 11-14 – Richard Grime (September 2009)



Terms and conditions

Live Classes and Flipped Learning courses

- In order to confirm your enrolment on a course, a **non-refundable deposit** of £50 is required, which goes towards your first half term's fees (invoiced on receipt of your booking form). Invoices for the balance for the first half term's fees will be sent out in early July. (Please note for the 1-year IGCSE Flipped Learning Course the first half term's fees are payable at the time of booking.) If numbers allow, I will happily transfer your booking to another class free of charge should your plans change at any point.
- Should I not have sufficient numbers enrol on your chosen class for it to run, I will give you the choice of swapping to an alternative class or a refund of your deposit.
- After the first half term, classes are billed half termly in advance, due just before the start of each half term. An email reminder is sent if an invoice is not paid by the due date. A £10 admin fee will be added to the bill of any families requiring a second reminder.
- If you decide not to continue with the course on which your child is enrolled, you will lose access to the electronic resources.
- Classes are non-refundable if your child does not attend a session, as students are provided with the relevant class video and resources to enable catch up. This should be done before the next class, as students will usually need that learning to access the next one.
- In the unusual event that I am unable to teach a scheduled live class, then I will provide a video class as an alternative to ensure that learning can continue, and credit your account with a discount to reduce the cost of the substituted video class to £10.
- Students must behave appropriately in classes. This includes arriving on time, with the right equipment and treating all class members with respect. Some students benefit from having a parent on hand for the first few classes to help get them into good habits e.g. having the notes to hand, getting on with the tasks set, writing down information etc. If a student's behaviour is not appropriate and is impacting the learning of others, I will seek your help to resolve the issue. In the unlikely event that we are not able to resolve the issue, then I reserve the right to remove the student from the course.
- Classes take place via Zoom. It is your responsibility to check that equipment is working appropriately and that you have an appropriate internet connection. It does help to run updates to Zoom periodically, particularly if you experience any problems.
- All classes take place at the stated UK time. Please note that if you are not based in the UK, this may result in the class time changing by an hour for you when we switch to daylight saving time (30/10/22 – 26/3/23).

- Parents are responsible for the booking of exams for their child, although I am more than happy to advise and support as necessary, particularly with regards to evidence for access arrangements, such as extra time for students with SEND.
- Class resources must not be shared with other families. Please note that I do offer a bursary scheme for my Video Courses if a family cannot afford the course fees.

Video Course
More information coming soon, once I have moved all the resources across to an alternative hosting system for the next academic year. If you would like to be updated on when this is ready to take bookings, then please send me an email on candochem@gmail.com

How to apply for a place on a course

To enrol your child in one of my Live Classes or Flipped Learning Courses, then please follow the link to the appropriate electronic booking form:

KS3: https://forms.gle/HyM7oKbkQGj8BJor5

IGCSE: https://forms.gle/qKzrHWQ3dae6mTQc9

Further information / contact details

Should you have any questions, or want any further information then please do not hesitate to contact me on candochem@gmail.com
It matters to me that we find the best fit for your child, so am always happy to offer further advice to help you make the right decision.

Beyond IGCSE at (I)A Level

I currently tutor students following Edexcel (I)A Level and AQA (I)A Level Chemistry. I have been a Head of Department in schools where we have followed both A Level courses, so know them inside out and have extensive resources to support my teaching. In the longer term I would love to offer a small group A Level course - possibly from September 2023 if there is sufficient interest. Do please let me know if this is something that you might be interested in further down the line.