

Exam board: AQA

Specification: available from the AQA website

<https://www.aqa.org.uk/subjects/science/as-and-a-level/chemistry-7404-7405>

### **Pre-course learning task**

Studying A-level Science is significantly more challenging than at GCSE level. The amount of information that must be learnt and remembered is much greater and the concepts studied much more complicated. Typically, students find the transition from GCSE to A-level difficult.

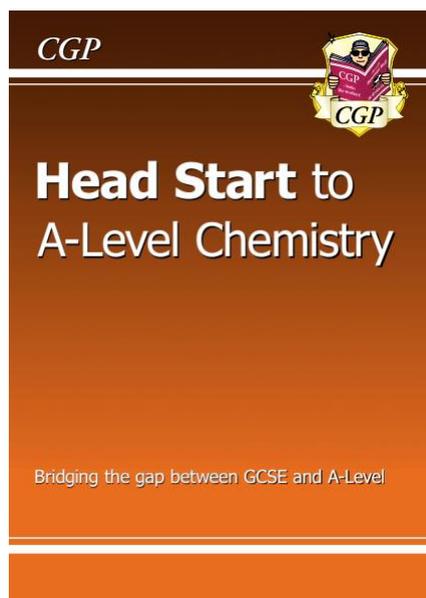
For students beginning their A-level studies in autumn 2020, the transition is particularly challenging due to the disruption caused by the coronavirus pandemic. It is essential that these students spend a considerable amount of time in the months leading up to the start of their A-level studies preparing for their new courses.

The task you are required to complete before September is outlined below. This work will be collected and assessed in the first week of your A-level studies. This is a sizeable task that will take many hours to complete to an adequate standard. It is sensible to spread the work out over the time you have between now and September. Planning a schedule/ timetable and setting yourself a weekly target will be very helpful.

You will need access to the book 'New head start to A-level Chemistry (CGP A-level Chemistry)'. This is currently available to download for free from Amazon at <https://www.amazon.co.uk/Head-Start-level-Chemistry-Level-ebook/dp/B00VE2NIGG>  
A free app to read the book can be downloaded from the same webpage.

Your task is to work through the whole book, making notes and answering all the questions at the bottom of each page.

You will need to hand in your notes and answers in the first week of the new academic year.



In addition to the book, there are several useful resources that will assist you with this work and your preparation for 6<sup>th</sup> form study in general:

1. Machem guy videos. These are excellent videos produced by an A-level Chemistry teacher that explain many of the concepts covered in the Head start book. They can be found here: <https://www.youtube.com/playlist?list=PLi6oabjl6coxUlfu8syK3K0iFXQIjwDUM&app=desktop>
2. Chemguide website. This is an excellent resource with very clear explanations. It can be found here: <https://www.chemguide.co.uk/>
3. Seneca website. Select the 'Chemistry: AQA A Level' course at: <https://www.senecalearning.com/>

### Other resources

- A-Level Chemistry: Essential Maths Skills (New), CGP, ISBN 978-1782944720
- What is Chemistry? – Peter Atkins, OUP, ISBN 978-0199683987

- Why Chemical Reactions Happen – James Keeler and Peter Wothers, OUP, ISBN 978-0199249732
- The Laws of Thermodynamics, A Very Short Introduction – Peter Atkins, OUP, ISBN 978-0199572199
- Molecules at an Exhibition (The Science of Everyday Life) – John Emsley, OUP, ISBN 978-0-19-286206-8
- Periodic Tales: The Curious Lives of the Elements, Hugh Aldersey-Williams, Penguin, ISBN 978-0141041452
- Fun Science:
- A Short History of Nearly Everything – Bill Bryson, Black Swan, ISBN 978-0-55-299704-1
- How to Fossilise Your Hamster (and other amazing experiments for the armchair scientist) – Mick O’Hare,
- Profile Books, ISBN: 978-1-84668-044-1
- 13 Things That Don’t Make Sense – Michael Brooks, Profile Books 2009, ISBN 978-1861978172
- The Periodic Table – Primo Levi, Penguin, ISBN 978-0-14-029661-7
- Download APPS: Khan Academy, Organic Chemistry Essentials, Periodic Table (Royal Society of Chemistry).
- Subscribe to the RSC Chemnet for current developments in Chemistry and Science, as well as loads of university information and seminars.  
<http://www.rsc.org/Membership/Networking/ChemNet/>