

Chemistry - Induction Work

Dear student,

Firstly I would like to start with a congratulations for showing interest in studying Chemistry (or as we like to call it – the best science!). We really are looking forward to welcoming you properly in September and showing you how this subject can link into so many interesting areas of life. Whilst it is not a 'routine' transition compared to previous years, there really is some tasks/work that you can complete now, that mean that you will start fresh in September and be up and running towards success.

To give you this head start – we have included some information about these tasks and how best to approach them, and don't worry if you come from a GCSE background in AQA, OCR or Edexcel, these tasks will only cover content that is relevant from whichever background.

What do I need to do?

You may already know some of this from previous correspondence, so please forgive the repetition if so!

In terms of the syllabus, we take the OCR A chemistry course and with regards to text books and revision guides, our advice would be to hold off on purchasing these for now. Text books we will supply and revision guides, we will give you a chance to buy at a reduced rate once the course starts.

So for preparation for the course, our best advice would be to be comfortable with content that transitions across from year 10/11 into year 12. Most of this is covered in the CGP book called bridging the gap to A Level.

The start of the A-level course involves a certain amount of refining ideas and theories from GCSE, so I would recommend focusing on the GCSE content listed below to ensure that you are comfortable ready to start A-level. A student that arrives with a good handle on GCSE topics from this list is a great starting point for us, so if you are looking to do any preparation beyond the bridging the gap book, then my real best advice would be the following things,

1. To practice any calculations from year 10/11 repeatedly so that you are fluid with them. There is a website called 'A Chemical Orthodoxy', who has revision booklets for GCSE entitled SLOP.

The key calculations we will use at the start of the A-Level course are related to moles, concentrations, relative masses etc.... Loads of practice can be found on this website.

<https://www.google.com/amp/s/achemicalorthodoxy.wordpress.com/2019/03/13/all-the-slop-you-need/amp/>

Once you are confident about the calculations of moles and concentrations, I would move to reacting masses and also titration calculations.

2. Bonding diagrams for both ionic and covalent bonding. How to draw them, when to know that something is ionic and when something is covalent.
3. GCSE models of atomic structure (and ionic structure). How many protons, neutrons and electrons.
4. The structure of key organic homologous series. Alcohols, alkanes, alkenes, carboxylic acids.
5. Balancing equations. (Lots of different ways to do this), let me know if you want me to suggest some different approaches. Some work for some people better than others.

To risk repeating myself, we build on each of these topics in year 12, so having confidence/mastery over the GCSE material will be a very good place for the start of the A Level course.

Hope that helps, and please come back to us with any questions you have, we are always happy to help out with people seeking to do well in chemistry.

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