

Chemistry A-level Transition Plan

The A-level transition pack for Chemistry consists of 12 different activities for you to work through over the summer. These activities focus on the GCSE content you will need to have a sound grasp of to access the A-level course. The secondary aim of this pack is to help you develop the skills you will need to develop to become a successful independent learner; these include time management, resilience, and drawing conclusions.

The table below contains details of each activity pack including the difficulty level of the topic, the GCSE specification reference and the deadline by which the work should be completed. Each pack should take around an hour to complete except the individual investigation. The individual investigation allows students to take a detailed look at one topic that is slightly beyond GCSE level and take a more holistic/self-directed approach to their learning.

Activity Pack	Approximate GCSE Grade	GCSE Specification Reference	Deadline
Atomic Structure	4-6	4.1.1.1 Atoms, elements and compounds 4.1.1.4 Relative electrical charges of subatomic particles 4.1.1.7 Electronic structure	5-6-20
Mass No. & Isotopes	4-6	4.1.1.5 Size and mass of atoms 4.1.1.6 Relative atomic mass	5-6-20
Ionic Bonding	6-9	4.2.1.2 Ionic bonding 4.2.1.3 Ionic compounds	12-6-20
Covalent Bonding	6-9	4.2.1.4 Covalent bonding	19-6-20
Metallic Bonding	6-9	4.2.1.5 Metallic bonding	19-6-20
Giant Covalent Bonding	4-6	4.2.2.6 Giant covalent structures	26-6-20
Atomic Models and the Periodic Table	4-6	4.1.1.3 The development of the model of the atom 4.1.2.2 Development of the periodic table	3-7-20
Ar, Mr, %age mass	4-6	4.1.1.6 Relative atomic mass	10-7-20
Alkanes, Alkenes & Combustion	4-6	4.7.1.1 Crude oil, hydrocarbons and alkanes 4.7.1.4 Cracking and alkenes	17-7-20
Fractional Distillation & Combustion	4-6	4.7.1.1 Crude oil, hydrocarbons and alkanes 4.7.1.2 Fractional distillation and petrochemicals 4.7.1.3 Properties of hydrocarbons	24-7-20
Atmospheric Chemistry	7-9	4.9 Chemistry of the atmosphere	31-7-20
Rates Recap	4-6	4.6.1 Rate of reaction	7-8-20
Independent Investigation	7-9	N/A	31-8-20
Glossary	To be completed concurrently with each activity pack		

Reading list/Suggested Resources:

GCSE Chemistry Bitesize
Doc Brown's Chemistry website
Chemistrygcse.co.uk
Free Science Lessons on YouTube
CGP Chemistry revision guides

Equipment Required for September:

Pens – multiple colours
HB pencils
Highlighters
A4 lined paper paper
2 A4 ring binders with dividers
Scientific calculator

For students who find the work challenging there will be several sources of help available including video resources, Seneca's online learning platform and weekly Q&A sessions with Mr D Webber (the Head of Chemistry) via Microsoft Teams. These online help sessions will run from 3pm to 4pm on Fridays from the 5th of June onward.

It is important that students spread the transition work out over the whole summer and do not rush it in the last week of the summer holidays. The idea behind this is to ensure students encounter the basics of Chemistry on a regular basis, this will keep their knowledge "fresh" in their minds and help them to avoid losing skills over the next few months. It will also help them to develop their ability to organise their own learning, this is a key skill required

for the successful completion of any A-level. The key to managing workload and maintaining standards is to do a little and do it often.

If you have any further questions please contact me via e-mail: Daniel.Webber@fromecollege.org. I look forward to seeing you (virtually or in school) in September,

Mr D Webber