Chemistry

**Key skills developed in this work:**

* Independent learning and research skills
* Develop and consolidate your understanding of foundation concepts.
* Improve your maths skills for chemistry [https://www.birmingham.ac.uk/Documents/college-eps/college/stem/Student-Summer-](https://www.birmingham.ac.uk/Documents/college-eps/college/stem/Student-Summer-Education-Internships/Maths-for-Chemists-Booklet.pdf) [Education-Internships/Maths-for-Chemists-Booklet.pdf](https://www.birmingham.ac.uk/Documents/college-eps/college/stem/Student-Summer-Education-Internships/Maths-for-Chemists-Booklet.pdf)

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| **Bridging the Gap between CXC/ IGCSE Coordinated Science to IGCSE Separate Science:** <https://znotes.org/caie/igcse/chemistry-0620/> <https://www.youtube.com/playlist?list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKl8W> Here is the Separate Chemistry IGCSE syllabus (all areas need to be fully understood before beginning A-Level Chemistry) <https://www.cambridgeinternational.org/Images/595428-2023-2025-syllabus.pdf> **Some key areas (not covered in Coordinated Science):** 3.3 The mole and the Avogadro constant (5-8)4.2 Hydrogen-oxygen fuel cells 5.1 Exothermic and Endothermic reactions (8)6.3 Reversible reactions and equilibrium (all) 6.4 Redox (6-10)7.1 The characteristic properties of acids and bases (7-12)11. Organic chemistry - Carboxylic acids (11.7 – all)  - Polyesters (11.8 – 8(b), 10(b), 11-13) |

**Website links:**

<https://www.khanacademy.org/science/chemistry> <http://www.docbrown.info/page13/page13.htm> <https://www.physicsandmathstutor.com/chemistry-revision/a-level-cie/>

**Appropriate additional reading:**

This booklet has a range of reading and activities to develop your skills <https://drive.google.com/file/d/1mpRt24Wox1687uDoqHaqcLQQm5sp0Nf_/view>

**Tasks to complete:**

Some activities to brush up your skills for chemsitry. <https://drive.google.com/file/d/1DC8PVlhJ5jbuN2_coGM-iDqfk7-ALSXh/view> <https://drive.google.com/file/d/1554zkBwxMsMZaOnR3R600UagrnuQ9dq5/view>

Sign up to Seneca and work through some activities on the CIE Chemistry course. [https://app.senecalearning.com/classroom/course/2eb3e96b-13a1-48db-b631-](https://app.senecalearning.com/classroom/course/2eb3e96b-13a1-48db-b631-5d0098e3ed27/section/9b7d82b2-685c-4ffe-bb51-8f586099ea3f/session) [5d0098e3ed27/section/9b7d82b2-685c-4ffe-bb51-8f586099ea3f/session](https://app.senecalearning.com/classroom/course/2eb3e96b-13a1-48db-b631-5d0098e3ed27/section/9b7d82b2-685c-4ffe-bb51-8f586099ea3f/session)

**Other:**

Complete an online course like the ones below: <https://www.futurelearn.com/courses/everyday-chemistry> <https://www.futurelearn.com/courses/food-fraud> <https://www.futurelearn.com/courses/the-science-of-medicines> <https://www.futurelearn.com/courses/exploring-cancer-medicines>

<https://www.futurelearn.com/courses/biochemistry>

<https://www.coursera.org/learn/advanced-chemistry> <https://www.coursera.org/learn/intro-chemistry>

**Note:** You do not need to pay for these courses, you can complete them all for free if you do not sign up for a certificate.