

Chemistry Suggestions Year 11

1. Preparation for A Level

- Ensure you know the formulae of all common ions and molecules
- Practise writing formulae of ionic compounds
- Practise balancing chemical equations
- Practise chemical calculations (moles) until these come naturally

If you have the CGP GCSE workbooks, certainly complete all section relating to the above topic areas.

The CGP 'New Head Start to A Level Chemistry' is currently free with KindleUnlimited (subscription service) on Amazon and would be worth working through.

<https://www.amazon.co.uk/Head-Start-level-Chemistry-Level-ebook/dp/B00VE2NIGG>

2. Enrichment

Books – both paper and audio books

<http://www.lovereading.co.uk/genre/sci/Popular-Science.html> gives a list of popular science books with some links to free audio versions.

- Chemistry: A very Short Introduction Peter Atkins (part of a big series of science 'Short Introductions')
https://www.amazon.co.uk/dp/0199683972/?coliid=I22FEXZLAI4VS&colid=JPMYHSTWO4XA&psc=1&ref=lv_ov_lig_dp_it
- Unnatural Causes Dr Richard Shepherd (Forensic Pathology)
https://www.amazon.co.uk/dp/B01N3S0OM4/?coliid=I2QCIVTLUTWXSK&colid=JPMYHSTWO4XA&psc=0&ref=lv_ov_lig_dp_it
- Admissions: A Life in Brain Surgery Henry Marsh
https://www.amazon.co.uk/dp/B01NBQZX91/?coliid=I10CEUKJK1XFA&colid=JPMYHSTWO4XA&psc=0&ref=lv_ov_lig_dp_it
- The Periodic Table Primo Levi
An impassioned response to the Holocaust: Consisting of 21 short stories, each possessing the name of a chemical element, the collection tells of the author's experiences as a Jewish-Italian chemist before, during, and after Auschwitz in luminous, clear, and unfailingly beautiful prose. It has been named the best science book ever by the Royal Institution of Great Britain and is considered to be Levi's crowning achievement.
https://www.amazon.co.uk/The-Periodic-Table/dp/B018WDDQ6G/ref=sr_1_1?crid=2KFSAMFNMU8XL&keywords=the+periodic+table+primo+levi&qid=158558430&sprefix=the+periodic+table%2Caps%2C158&sr=8-1
- Tamed: Ten Species that Changed Our World Alice Roberts
https://www.amazon.co.uk/Tamed-Species-That-Changed-World/dp/B079M74P1M/ref=sr_1_1?keywords=tame+alice+roberts&qid=1585559241&sr=8-1

Films

- An Inconvenient Truth (Al Gore documentary about global warming)
- An Inconvenient Sequel (follow up Al Gore documentary about global warming)
- Deepwater Horizon (disaster film about the BP oil spill in 2010)
- Dark Waters (court room drama based on a true story of pollution caused by a chemical company) (on Prime)
- Interstellar (Nobel Prize winning Physicist Kip Thorne was the scientific advisor)
- Inception (a thief with the rare ability to enter people's dreams and steal their secrets from their subconscious is offered a seemingly impossible task: Plant an idea in someone's mind to complete the perfect crime).

And 2 on my favourites, currently available on NetFlix

- The Boy Who Harnessed the Wind (based on a true story about a boy inspired by a science book)
- Lion (more geographical, but a true story and uplifting book and film)

Podcasts

- Chemists' Dirty Secret – Andrea Della explores the development and production of chemical weapons
<https://www.bbc.co.uk/programmes/m0001zwz>
- The Periodic Table (see above)
https://www.amazon.co.uk/The-Periodic-Table/dp/B018WDDQ6G/ref=sr_1_1?crid=2KFSAMFNMU8XL&keywords=the+periodic+table+primo+levi&qid=1585558430&srefix=the+periodic+table%2Caps%2C158&sr=8-1
- The Life Scientific
Professor Jim Al-Khalili talks to leading scientists about their life and work, finding out what inspires and motivates them and asking what their discoveries might do for us in the future.
Topics range from Plastic Pollution to Astro Chemistry
<https://www.bbc.co.uk/programmes/b015sqc7>

FutureLearn Courses

Free online courses at www.futurelearn.com. Suitable for a GCSE level knowledge of science.

Amongst many others:

- Exploring Everyday Chemistry by University of York Start date: 28/6/21
<https://www.futurelearn.com/courses/everyday-chemistry>
- Discovering Science: Medicinal Chemistry by University of Leeds Start date: available now
<https://www.futurelearn.com/courses/discovering-science-medicinal-chemistry>
- Discovering Science: Global Challenges by University of Leeds Start date: available now
<https://www.futurelearn.com/courses/discovering-science-global-challenges>
- Identifying Food Fraud by UEA Start date: available now
<https://www.futurelearn.com/courses/food-fraud>

3. Careers

Use the following links to research in to where an A Level in Chemistry might take you.

<https://edu.rsc.org/future-in-chemistry/career-options>

<https://www.prospects.ac.uk/careers-advice/what-can-i-do-with-my-degree/chemistry>