



A Level Chemistry



Task	Details	Points
Lab safety for students	Make a 5 minute presentation for KS3 and KS4 students to recap the science lab rules to them, after a long break without practicals or at the start of a new term. Speak to your chemistry teacher about when you can deliver this to a class.	5 pts
Chemputers	Can chemical reactions alone power a computer? Read up about the work of Professor Lee Cronin and the Chemputer team at the University of Glasgow. Watch these videos to help. Have a conversation with your chemistry teacher about what you found impressive about his work.	5pts
Climate Change	Read the 2025 Progress Report to Government by the Climate Change Committee . Pick one of the report's 'priority recommendations' and prepare a do-now activity for Year 9 students to use in their global warming topic, based on one of the priorities in the report.	5pts
Inspiring real-world chemists	Pick a chemist whose work inspires you. Follow them on social media and interact with them on their Instagram or Youtube channel. Ask them a question about the chemistry of a specific aspect of their work	5pts
Stuff Matters	Read the book: "Stuff Matters: The Strange Stories of the Marvellous Materials that Shape Our Man-made World" <i>It takes basic school concepts—like giant covalent structures, metallic bonding, and cross-linking—and applies them to complex real-world engineering materials, from bio-compatible implants to self-healing concrete.</i> Pick one of the materials that fascinated you and prepare a 5 minute presentation on this material. It should be pitched at someone with A Level Chemistry knowledge.	10pts
Molecules of Murder	Read the book: "Molecules of Murder - Criminal molecules and classic cases" Pick a murder case that particularly fascinated you and find a documentary / news clips to watch on the case. Write a 250 words summary of the case, the murder molecule and the outcome.	15pts
Work experience	Find a chemist in a field that interests you, get in touch with them by email or on social media and arrange a visit to their lab, or shadow them for a day (or longer!).	15pts
Cambridge Chemistry Challenge	Complete a Cambridge Chemistry Challenge past paper under exam conditions, then fully self assess. The scoring system isn't published online, but ask your Chemistry teacher for the grade boundaries for that year, to see if you get a Copper, Silver or Gold award!	15pts

Virtual teaching	Create a cluster of 3 lessons for Year 8 students about anything chemistry related! It should go beyond the Year 8 curriculum and engage students about how cool chemistry can be. There should be digital resources and you should include some practical work ideas or group work in at least one of the lessons.	20pts
It's a gas!	Read the book: "It's a gas! The Magnificent and Elusive Elements that Expand Our World". <i>A-Level physical chemistry treats gases almost entirely as ideal calculations ($pV=nRT$). This book dives into the real-world quantum behaviors, historical discoveries, and industrial applications of gases, expanding on thermodynamics and kinetics.</i> Then, write a 500 word summary, showing the limitations of the Ideal Gas Equation, backed up with your learnings and evidence from this book.	20pts
Royal Society of Chemistry Olympiad	Complete a Royal Society of Chemistry Olympiad past paper under exam conditions, then fully self assess. Use the grading for that paper to work out if you got a Copper, Silver or Gold award!	20 pts
International Chemistry Olympiad	Have a go at an International Chemistry Olympiad past paper ! This is the next round after the UK Chemistry Olympiad! Self-assess your work afterwards.	25 pts