

### What is Chemistry?

Chemistry is the study of materials and substances and the transformations they undergo through interactions and the transfer of energy. Chemistry develops students' understanding of key chemical concepts and models, which they use to predict properties and reactions and then adapt for particular purposes, including meeting economic, environmental and social needs.

### How will Chemistry help me in the future?

This course equips students with the knowledge, understanding and opportunity to investigate properties and reactions of materials. Students recognise hazards and make informed, balanced decisions about chemical use and sustainable resource management. Investigations and laboratory activities develop an appreciation of the need for precision, critical analysis and informed decision making. Students learn to become responsible and efficient users of specialised chemical products and processes.

### What careers can Chemistry lead to?

Chemistry can prepare students for a range of careers, including those in forensic science, environmental science, engineering, medicine, dentistry, pharmacy and sports science. Chemistry knowledge is also valuable in occupations such as art, winemaking, agriculture and food technology.

### What content will I study in Year 11 and Year 12?

Year 11	
<b>Chemistry ATAR Unit 1:</b> Students use models of atomic structure and bonding to explain macroscopic properties of materials. Students develop understanding of energy changes associated with chemical reactions and use equations to calculate masses of substances involved in reactions.	<b>Chemistry ATAR Unit 2:</b> Students develop understanding of bonding models and relationship between structure, properties and reactions. Students investigate properties of water and of acids and bases, and use equations to calculate concentrations and volumes of solutions involved in reactions.
Year 12	
<b>Chemistry ATAR Unit 3:</b> Students investigate concept of reversibility of reactions and the dynamic nature of equilibrium in chemical systems; models of acid-base behaviour; principles of oxidation and reduction, including generation of electricity from electrochemical cells.	<b>Chemistry ATAR Unit 4:</b> Students develop understanding of relationship between structure, properties and chemical reactions of organic functional groups. Students investigate process of chemical synthesis to form useful substances and products and consider their design.

### What are the pre-requisites?

'B' grade in Year 10 Science.

## LEARN MORE

**Visit:** <https://senior-secondary.scsa.wa.edu.au/syllabus-and-support-materials/science/chemistry>

**Talk to Mr Zollo:** [albert.zollo@cewa.edu.au](mailto:albert.zollo@cewa.edu.au)  
**Ms Bellandi:** [liliana.bellandi@cewa.edu.au](mailto:liliana.bellandi@cewa.edu.au)  
**Ms Skelin:** [krystal.skelin@cewa.edu.au](mailto:krystal.skelin@cewa.edu.au)