

CHEMISTRY

The Year 11 Chemistry course develops knowledge, understanding and skills in relation to the properties and structures of matter, the types and drivers of chemical reactions and how we measure the quantities involved in these processes.

The Year 12 course builds on the concepts introduced in Year 11 by examining different classes of chemicals and a variety of chemical reactions. These include organic chemistry and acid/base equilibrium reactions. The course challenges students to apply this knowledge to a range of methods used in identifying and measuring quantities in chemistry and leads to an understanding of the ways in which structure and bonding affects the properties and interactions of chemical species.

CONTENT

Year 11

The Year 11 course consists of four modules.

- ✚ **Module 1** Properties and Structure of Matter
- ✚ **Module 2** Introduction to Quantitative Chemistry
- ✚ **Module 3** Reactive Chemistry
- ✚ **Module 4** Drivers of Reactions

Year 12

The Year 12 course consists of four modules.

- ✚ **Module 5** Equilibrium and Acid Reactions
- ✚ **Module 6** Acid/base Reactions
- ✚ **Module 7** Organic Chemistry
- ✚ **Module 8** Applying Chemical Ideas

COURSE REQUIREMENTS

In addition to the study of core modules, students are provided with 15 hours of course time for **Depth Studies** in both Year 11 and Year 12. During this time students may undertake an investigation/activity that allows for the further development of one or more scientific concepts. A Depth Study may be one investigation/activity or a series of investigations/activities. Depth Studies may be included in one module or across several modules. **Practical investigations** are an essential part of the Year 11 and Year 12 courses and must occupy a minimum of 35 hours of course time each year. Students will be assessed on three tasks. Details of the assessments are to be confirmed.

Chemistry can be studied by itself or with one or more of the other science courses. This course is designed for those students who have a demonstrated a substantial achievement level in Stage 5 Science. Students who have not demonstrated significant success in Science in Years 9 and 10 should think carefully before choosing a Stage 6 Science course.

Success in a Stage 6 Science course also requires students to commit a significant amount of individual time to the review of scientific ideas explored in class time. For every hour spent in class students should do at least 45 minutes of work at home through planned study and wide reading from a variety of sources. This time increases as students approach assessment tasks.