# CHEMISTRY

## Description

Chemistry explores the structure, composition and reactions of, and between, all elements, compounds and mixtures that exist in the Universe. The discovery, and synthesis, of new compounds, the monitoring of elements and compounds in the environment, and an understanding of industrial processes and their applications to life processes are central to human progress and our ability to develop future industries and sustainability. Chemistry is an essential discipline that currently addresses and will continue to address our energy needs and uses, the development of new materials, and sustainability issues as they arise.

**Topics include:** Properties and Structure of Matter, Quantitative Chemistry, Reactive Chemistry, Drivers of Reactions, Equilibrium Reaction, Acids and Bases, Organic Chemistry and applying Chemical Ideas.

#### Assessment

Students will demonstrate their learning through a range of assessment tasks which include research, first hand investigations, written examinations and a depth study.

Students will be required to demonstrate the completion of a regular athome study regime including the completion of scientific reports, data analysis and completion of chemical calculations that support their success in this course.

# Additional Information

It is strongly recommended that students are currently achieving at a Grade B average or better across all courses, especially Science.

Students need to be highly organised and scientifically motivated to consider this course.

It is recommended that students must have achieved HSC Minimum Standards.

This course provides the foundation knowledge and skills required to study Chemistry at a Tertiary level after school, and supports participation in a range of careers in Chemistry, Chemical Engineering and related interdisciplinary industries.

NUMBER OF UNITS: 2 ATAR: YES HSC EXAMINATION: COMPULSORY

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### Costs

\$30.00 per year for Edrolo subscription to be paid directly via the Edrolo payment portal. Excursion costs are additional.