

Science

In each of the senior science subjects, students will develop ;

- The ability to coordinate their understanding of the knowledge and skills associated with the discipline to refine experiments, verify known scientific relationships, explain phenomena with justification and evaluate claims by finding evidence to support or refute the claims.
- Aspects of the skills used by scientists to develop new knowledge, as well as the opportunity to refine these skills through practical activities



Our Mission

To develop inspired, innovative and resilient learners prepared to challenge the future.

Science Department



Science in Practice

A course of study in Science in Practice is inclusive and caters for a wide range of students with a variety of backgrounds, interests and career aspirations.

The core of Science in Practice focuses on 'Scientific literacy and working scientifically', 'Workplace health and safety', and 'Communication and self-management'. Science in Practice uses a contextualised approach, where modules of work deliver the core through electives 'Science for the workplace', 'Resources, energy and sustainability', 'Health and lifestyles', 'Environments', and 'Discovery and change'.

The objectives of the course ensure that students apply what they know and understand to plan investigations, analyse research and evaluate evidence.



Chemistry

Chemistry is the study of materials and their properties and structure. Upon completion of the course, students will have an appreciation for a body of scientific knowledge and the process that is undertaken to acquire this knowledge. They will be able to distinguish between claims and evidence, opinion and fact, and conjecture and conclusions.

Unit 1—Chemical Fundamentals—structures, properties and reactions	Data Test Student Experiment
Unit 2—Molecular interactions and reactions	Research Task Unit 1 and 2 Exam
Unit 3—Equilibrium Acids and redox reactions	Summative Data Test (10%) Summative Student Experiment (20%)
Unit 4—Structure, synthesis and design	Summative Research Task (20%) External Examination (50%)

Biology

Biology provides opportunities for students to engage with living systems. Students will learn valuable skills required for the scientific investigation of questions. In addition, they will become citizens who are better informed about the world around them and who have the critical skills to evaluate and make evidence-based decisions.

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Unit 1—cells and multicellular organisms	Data Test Student Experiment
Unit 2—Maintaining the internal Environment	Research Task Semester Exam
Unit 3—Biodiversity and the interconnectedness of life	Summative data test (10%) Summative student experiment (20%)
Unit 4—Heredity and the continuity of life	Summative Research Task (20%) External Examination (50%)

Pre-Requisites	Co- Requisites
A or B in year 10 Science A, B or C in year 10 SMA Science	General Math General English Mathematical Methods (recommended)

Physics

Physics provides opportunities for students to engage with the classical and modern understandings of the universe.

Students will learn valuable skills required for the scientific investigation of questions. In addition, they will become citizens who are better informed about the world around them, and who have the critical skills to evaluate and make evidence-based decisions about current scientific issues.

Unit 1—Thermal Nuclear and Electrical physics	Data Test Student Experiment
Unit 2—Linear Motion and Waves	Research Task Unit 1 and 2 Exam
Unit 3—Gravity and Electromagnetism	Summative Data Test (10%) Summative Student Experiment (20%)
Unit 4—Revolutions in Modern Physics	Summative Research Task (20%) External Examination (50%)

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