Overview

Students who study Science courses improve their scientific literacy and numeracy, develop critical and creative thinking skills and enhance their understanding of our world. Students often use the study of Science as a stepping stone to further study but it does not have to be. Science courses also provide the necessary background for those students who intend to enter the workforce after year 12. For example, Physics is an ideal course for students contemplating the electrical trades.

There are no restrictions on choosing science subjects. Any combination and any number of science subjects can be studied. They are all ‘OP’ subjects except Agricultural Practices. The appropriate year 10 Foundation Science course should be chosen to progress to the relevant senior subject. Studying year 10 Agricultural Science would be of benefit for students studying senior Agricultural Science but it is not essential.

Some Science subjects are a prerequisite for studying certain subjects at university so check the relevant university guides to make sure you make the right choices.

Physics and Chemistry require more mathematical knowledge than the other sciences so it is recommended that students have performed reasonably well in Maths as well as Core Science in year 10 before considering these subjects.

Subject Information

<table>
<thead>
<tr>
<th>Subject</th>
<th>Description</th>
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<tbody>
<tr>
<td>Physics</td>
<td>The study of the physical world around us with concepts that include: motion, energy, forces, electricity, optics, heat and sound.</td>
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<tr>
<td>Chemistry</td>
<td>The study of matter and its transformations with concepts that include: the periodic table, water, redox reactions, the atmosphere, organic chemistry, metals and corrosion, wine chemistry and forensics.</td>
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<tr>
<td>Biology</td>
<td>The study of living things with concepts that include: genetics, ecology, evolution and animal and plant physiology.</td>
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<tr>
<td>Science 21</td>
<td>It covers all the science disciplines and includes subjects such as: environmental science, health, communications and forensics. It is an academic subject and useful for students going on to tertiary studies to study science related subjects – it is not an easy option.</td>
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<tr>
<td>Agricultural Science</td>
<td>Agricultural Science is a study of the way people manage natural resources for food and fibre. Concepts include: agribusiness, natural resources management, plant science, animal science and sustainable production systems.</td>
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<tr>
<td>Agricultural Practices</td>
<td>Agricultural Practices includes two areas of study, ‘Animal studies’ and ‘Plant studies’, which focus on building knowledge and skills suited to practical situations in agricultural workplaces.</td>
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Study Pathways

- **Junior**
  - Core Science
  - Agricultural Science

- **Year 10**
  - Biology and Science 21 Foundation
  - Chemistry and Physics Foundation
  - Agricultural Science Foundation
  - Agricultural Practices Foundation

- **Senior**
  - Biology
  - Science 21
  - Chemistry
  - Physics
  - Agricultural Science
  - Agricultural Practices

- **Tertiary**
  - University Tertiary Courses: Bachelor of Science, Bachelor of Agricultural Science, Diploma Courses, Food Science, Medical Science, Veterinary Science, Biomedical Sciences, Engineering, Optometry, Dentistry