



Highfields State  
Secondary College

# Semester 2 Course Overview

**Subject: Science**

**Year level: 7**

## Course Outline

The Australian Curriculum: Science has three interrelated strands: *Science Understanding*, *Science as a Human Endeavour* and *Science Inquiry Skills*. Together, the three strands of the science curriculum provide students with understanding, knowledge and skills through which they can develop a scientific view of the world. Students are challenged to explore science, its concepts, nature and uses through clearly described inquiry processes.

Term 3	Term 4
Physics	Biology
<p>Students will apply their understanding of balanced and unbalanced forces to justify conclusions and design modifications to objects. They will explore the effects of gravity and consider the difference between mass and weight.</p> <p>Students will investigate the impact of friction on moving objects and the forces that are involved in simple machines. They will develop and conduct a testing process to answer identified questions, taking into account fair testing.</p>	<p>In this unit cells are identified as the basic units of living things and are recognised as having specialised structures. Microscopes and digital images are used for the identification of plant and animal cells. The functions of the main structures are represented and identified. The concept of cell division is examined, and its repair and reproduction purpose identified.</p> <p>Students learn about sexual reproduction and immunity, with a focus on organ systems that allow multi-cellular plant or animal organisms to reproduce and survive. The structure of reproductive organs is identified, and the function of each organ in relation to the overall function of the organ system is also identified. The impact of reproductive technologies is discussed. The functions of the immune system are explored and consideration given to ways in which diseases can be prevented.</p>
Assessment	
<p><b>Data Exam</b> - Students will complete a supervised assessment under timed conditions. Data tests allow students to demonstrate understanding and knowledge of Science Inquiry Skills</p>	<p><b>Exam</b> - Students will complete a supervised assessment under timed conditions. Science exams allow students to demonstrate understanding and knowledge of key concepts.</p>

### Literacy requirements:

This unit provides opportunities for students to engage in the Australian Curriculum Content and build upon the literacy skills of:

- using technical and specific terms for concepts and features of the world,
- presenting scientific information in the form of diagrams, flow charts, tables and graphs
- comprehending and composing texts, including those that provide information, describe events and phenomena, recount experiments, present and evaluate data, give explanations and present opinions or claims.

### Numeracy requirements:

This unit provides opportunities for students to engage in the Australian Curriculum Content and build upon the numeracy skills of:

- collecting, representing and interpreting data from investigations.
- Use of formal units to provide accurate results in measuring and testing across a range of science topics.