

# SCIENCE IN PRACTICE

## OVERVIEW

Science in Practice develops critical thinking skills through the evaluation of claims using systematic reasoning and an enhanced scientific understanding of the natural and physical world. Students learn through a contextual interdisciplinary approach that includes aspects of at least two science disciplines — Biology, Chemistry, Earth and Environmental Science or Physics. They are encouraged to become scientifically literate, that is, to develop a way of thinking and of viewing and interacting with the world that engages the practical and analytical approaches of scientific inquiry. Students plan investigations, analyse research and evaluate evidence. They engage in practical activities, such as experiments and hands-on investigations. Through investigations they develop problem-solving skills that are transferable to new situations and a deeper understanding of the nature of science.

## PATHWAYS

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. It can establish a basis for further education and employment in many fields, e.g. animal welfare, food technology, forensics, health and medicine, the pharmaceutical industry, recreation and tourism, research, and the resources sector.

## OBJECTIVES

By the conclusion of the course of study students should:

- describe and explain scientific facts, concepts and phenomena in a range of situations
- describe and explain scientific skills, techniques, methods and risks
- analyse data, situations and relationships
- apply scientific knowledge, understanding and skills to generate solutions
- communicate using scientific terminology, diagrams, conventions and symbols
- plan scientific activities and investigations
- evaluate reliability and validity of plans and procedures, and data and information
- draw conclusions, and make decisions and recommendations using scientific evidence.

## STRUCTURE

Core Topics	Electives
Scientific literacy and working scientifically Workplace health and safety	Science for the workplace Resources, energy and sustainability Health and lifestyles

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Communication and self-management

Environments  
Discovery and change

## ASSESSMENT

Schools devise assessments in Units 1 and 2 to suit their local context.

In Units 3 and 4 students complete *four* summative assessments. The results from each of the assessments are added together to provide a subject score out of 100. Students will also receive an overall subject result (A–E).

## NOTES

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