

Course Outline Year 9 Semester 2 2026

Science

Course Description and Aims

With inquiry at the core, the MYP sciences framework aims to guide students to independently and collaboratively investigate issues through research, observation and experimentation. The MYP sciences curriculum explores the connections between science and everyday life. As they investigate real examples of science applications, students discover the tensions and dependencies between science and morality, ethics, culture, economics, politics, and the environment. Scientific inquiry fosters critical and creative thinking about research and design, as well as the identification of assumptions and alternative explanations. Students learn to appreciate and respect the ideas of others, gain good ethical-reasoning skills and further develop their sense of responsibility as members of local and global communities.

MYP Assessment Criteria

Criterion A: Knowing and understanding

Students develop scientific knowledge (facts, ideas, concepts, processes, laws, principles, models and theories) and apply it to solve problems and express scientifically supported judgments.

Criterion B: Inquiring and designing

Students develop intellectual and practical skills through designing, analysing and performing scientific investigations.

Criterion C: Processing and evaluating

Students collect, process and interpret qualitative and/or quantitative data, and explain conclusions that have been appropriately reached.

Criterion D: Reflecting on the impacts of science

Students evaluate the implications of scientific developments and their applications to a specific problem or issue. Varied scientific language is applied to demonstrate understanding. Students should become aware of the importance of documenting the work of others when communicating in science.

Course Outline

In Semester Two, Year 9 students analyse energy conservation in simple systems and apply wave and particle models to describe energy transfer. They explain how interactions within and between Earth's spheres affect the carbon cycle. In Term Three, students study Physics of Waves. They use wave and particle models to describe energy transfer through different mediums and examine the usefulness of each model for explaining phenomena. They apply the law of conservation of energy to analyse system efficiency in terms of energy inputs, outputs, transfers and transformations. In Term Four, students study Earth Spheres & Cycles. They represent the carbon cycle and examine how key processes including combustion, photosynthesis and respiration rely on interactions between Earth's spheres (the geosphere, biosphere, hydrosphere and atmosphere).

Assessment Tasks

Assessment Task	Due*
Waves Test	Week 6
Energy Transfer Practical Report	Week 9
Earth Spheres Research	Week 15
Earth Spheres Test	Week 18

**Due date subject to change at classroom teacher discretion.*

Approaches to Learning

Communication skills, Self-Managements skills, Research skills, Thinking skills and Social skills.

Australian Curriculum Achievement Standard

The Achievement Standard for Year 9 Science is based on the Australian Curriculum v9 Science <https://www.australiancurriculum.edu.au/>.