

Year 5 Science

Achievement Standard

By the end of Year 5 students explain how the form and behaviour of living things enables survival. They describe key processes that change Earth's surface. They identify sources of light and model the transfer of light to explain observed phenomena. They relate the particulate arrangement of solids, liquids and gases to their observable properties. They describe examples of collaboration leading to advances in science, and scientific knowledge that has changed over time. They identify examples where scientific knowledge informs the actions of individuals and communities.

Students plan safe investigations to identify patterns and relationships and make reasoned predictions. They identify risks associated with investigations and key intercultural considerations when planning field work. They identify variables to be changed and measured. They use equipment to generate data with appropriate precision. They construct representations to organise data and information and describe patterns, trends and relationships. They compare their methods and findings to those of others, identify possible sources of error in their investigation, pose questions for further investigation and draw reasoned conclusions. They use language features that reflect their purpose and audience when communicating their ideas and findings.

Assessment Criteria

An overall level of achievement in this subject is determined by the teacher's on-balance judgment of the evidence presented in students' summative assessment across the following:

- **Science Understanding:** Biological Sciences, Chemical Sciences, Earth and Space Sciences, Physical Sciences
- **Science as a Human Endeavour:** Nature and development of science, Use and influence of science.
- **Science Inquiry Skills:** Questioning and predicting, planning and conducting, processing, modelling and analysing, evaluating, communicating.

Delivery (mode, time requirements, lessons)

Students have access to scheduled lessons each week. Lessons are delivered via the Learning Management System. Students are also expected to undertake independent study to complete tasks and assessment in accordance with the Work Rate Calendar. Course materials can be accessed in QLearn.

Student Requirements

Computer, internet access, email, printer, scanner, headset with microphone, stationery, resource list and SRS list.

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		Units and Learning Experiences, Summative Assessment, Criteria Assessed, Approximate timing/due date of summative assessment
Semester 1	Term 1	Earth and Space Sciences: Earth's Changing Surface In this unit, students explore the factors that shape the Earth's surface, focusing on both natural and human influences. They begin by identifying and describing Earth's landscapes and landforms, and then delve into natural processes like weathering and erosion to learn how these phenomena alter landforms over time, including rapid changes caused by sudden weather events. Students investigate erosion's impact on local landforms and understand the environmental effects of human actions. The unit also introduces the shell middens of the First Nations Peoples of Australia, highlighting their cultural significance and the threats they face, as well as strategies for their protection. Students develop critical-thinking skills and a deeper appreciation for both natural and cultural heritage, considering ways to preserve the Earth's surface and mitigate human impact.
		Summative assessment, criteria assessed, approximate timing/due date: - Describe key processes that change Earth's Surface - Identify examples where scientific knowledge informs that actions of communities - Identify key intercultural considerations when planning field work
	Term 2	Physical Sciences: Light: How Does My Shadow Change? In this unit, students will explore observable phenomena associated with light and begin to recognise that phenomena have sets of characteristic behaviours. They will explore the transfer of light and understand that light from a source forms shadows and can be absorbed, reflected and refracted. Students will plan and apply the elements of the scientific process and conduct investigations to answer questions and solve problems using appropriate equipment. Human endeavour outcomes relating to the use and influence of science are also addressed in this unit.
		Summative assessment, criteria assessed, approximate timing/due date: - Identify sources of light and model the transfer of light to explain observed phenomena - Describe examples of scientific knowledge that has changed over time - Plan safe investigations to identify patterns and relationships - Identify risks associated with investigations - Identify variables to be changed and measured and use equipment to generate data in an investigation
Semester 2	Term 3	Biological Sciences: Adaptations: What If Emus Could Fly? In this unit, students will examine and understand that living things have structural features and adaptations that help them to survive in their environment. They will analyse how the form of living things enables them to function in their environments, and understand that plants and animals have internal and external structures that function to support survival, growth, behaviour and reproduction.
		Summative assessment, criteria assessed, approximate timing/due date: - explain how the form and behaviour of living things enables survival - make reasoned predictions
	Term 4	Chemical Sciences: Matter Matters Students investigate the properties of states of matter and are introduced to the concept that all matter is made of tiny particles that we cannot see. Students explore the properties of solids, liquids and gases through hands-on, collaborative investigations and experiments. They then gather evidence from these investigations to relate the particulate arrangement of solids, liquids and gases to explain their observable properties.
		Summative assessment, criteria assessed, approximate timing/due date: - relate the particulate arrangement of solids, liquids and gases to their observable properties - describe examples of collaboration leading to advances in science - identify risks associated with investigations

Disclaimer All of the above information is accurate at the time of development.