

# Year 5 Science

## Achievement

By the end of Year 5, students classify substances according to their observable properties and behaviours. They explain everyday phenomena associated with the transfer of light. They describe the key features of our solar system. Students analyse how living things enable them to function in their environments. They discuss how scientific developments have affected people's lives and how science knowledge develops from many people's contributions.

Students follow instructions to pose questions for investigation, predict what might happen when variables are changed, and plan investigation methods. They use equipment in ways that are safe and improve the accuracy of their observations. Students construct tables and graphs to organise data and identify patterns. They use patterns in their data to suggest explanations and refer to data when they report findings. They describe ways to improve the fairness of their methods and communicate their ideas, methods and findings using a range of text types.

## 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 and analysing data and information, Evaluating, Communicating.

## Delivery (mode, time requirements, lessons)

Students have access to a 45 minute scheduled lesson each week. Lessons are delivered via Blackboard collaborate and teleconferencing. 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 Blackboard.

## Student Requirements

Computer, access to internet, email, printer, scanner, telephone or headset with microphone, exercise book, stationery.

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		<b>Units and Learning Experiences, Summative Assessment, Criteria Assessed, Approximate timing/due date of summative assessment</b>
<b>Semester 1</b>	<b>Term 1</b>	<p><b>Biology unit: Survival in the Australian environment</b> Students will examine the structural features and adaptations that assist living things to survive in their environment. They will understand that science involves using evidence and data to develop explanations. Students Investigate factors that influence how plants and animals survive in extreme environments.</p>
		<p><b>Summative assessment, criteria assessed, approximate timing/due date:</b></p> <ul style="list-style-type: none"> <li>Poster/multimodal presentation: Environment adaptations: Written task - create a creature and describe the relationship between structural and behavioural adaptations needed to survive in an environment (Biological Sciences, Processing and analysing data and information, Communicating) Week 10</li> </ul>
	<b>Term 2</b>	<p><b>Chemistry unit: Matter Matters</b> Students will broaden their classification of matter to include gases and begin to see how matter structures the world around them. They will pose questions, make predictions and plan investigations into the observable properties and behaviour of solids, liquids and gases and understand that scientific knowledge about solids liquids and gases are used to inform decision making and solve or prevent problems.</p>
		<p><b>Summative assessment, criteria assessed, approximate timing/due date:</b></p> <ul style="list-style-type: none"> <li>Assignment/Project Students plan, conduct, evaluate and report on an investigation into a factor that affects evaporation, and describe and apply knowledge of the properties of solids, liquids and gases (Chemical Sciences, Questioning and predicting, Planning and conducting, processing and analysing data and information, evaluating, communicating) Week 10</li> </ul>
<b>Semester 2</b>	<b>Term 3</b>	<p><b>Physics unit: Now you see it</b> Students will investigate the properties of light, shadows formation, reflection angles, refraction, how absorption of light, and the relationship between light source distance and shadow height. They will plan investigations, pose questions, make predictions, and follow and develop methods. They will explore the role of light in situations and consider how improved technology has changed devices and affected peoples' lives.</p>
		<p><b>Summative assessment, criteria assessed, approximate timing/due date:</b></p> <ul style="list-style-type: none"> <li>Assignment/Project. Plan, conduct, evaluate and communicate investigations into how the direction of light can be changed. (Physical sciences, Use and influence of science, Questioning and predicting, planning and conducting, communicating ) Week 9</li> </ul>
	<b>Term 4</b>	<p><b>Earth and space unit:</b> Students will describe the key features of our solar system including planets and stars. They will discuss scientific developments that have affected peoples' lives and describe details of contributions to our knowledge of the solar system from a range of people. Students will pose questions, plan and conduct investigations to answer questions and solve problems. They will decide on variables to change and measure to conduct fair tests.</p>
		<p><b>Summative assessment, criteria assessed, approximate timing/due date:</b></p> <ul style="list-style-type: none"> <li>Describe features of the solar system and developments in science which improve peoples' understanding of the world. Write a report for popular media about a proposed space mission to a planet (Earth and Space Sciences, Nature and development of science, Use and influence of science, Communicating) Week 7</li> </ul>

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