

Lanyon High School

Year 9 – Australian Curriculum: Science



Identify curriculum	Achievement standard	<p>By the end of Year 9, students explain chemical processes and natural radioactivity in terms of atoms and energy transfers and describe examples of important chemical reactions. They describe models of energy transfer and apply these to explain phenomena. They explain global features and events in terms of geological processes and timescales. They analyse how biological systems function and respond to external changes with reference to interdependencies, energy transfers and flows of matter. They describe social and technological factors that have influenced scientific developments and predict how future applications of science and technology may affect people's lives.</p> <p>Students design questions that can be investigated using a range of inquiry skills. They design methods that include the control and accurate measurement of variables and systematic collection of data and describe how they considered ethics and safety. They analyse trends in data, identify relationships between variables and reveal inconsistencies in results. They analyse their methods and the quality of their data, and explain specific actions to improve the quality of their evidence. They evaluate others' methods and explanations from a scientific perspective and use appropriate language and representations when communicating their findings and ideas to specific audiences.</p>			
Teaching and learning	Semester overview	Semester 1		Semester 2	
	Science Understanding BIOLOGY <ul style="list-style-type: none"> Analyse how biological systems function and respond to external changes with reference to interdependencies, energy transfers and flows of matter. Science Inquiry Skills <ul style="list-style-type: none"> design questions that can be investigated using a range of inquiry skills. Analyse their methods and the quality of their data, and explain specific actions to improve the quality of their evidence. 	Science Understanding PHYSICS <ul style="list-style-type: none"> Describe models of energy transfer and apply these to explain phenomena. Science Inquiry Skills <ul style="list-style-type: none"> design questions that can be investigated using a range of inquiry skills. Analyse trends in data, identify relationships between variables and reveal inconsistencies in results. Analyse their methods and the quality of their data, and explain specific actions to improve the quality of their evidence. 	Science Understanding CHEMISTRY <ul style="list-style-type: none"> Explain chemical processes and natural radioactivity in terms of atoms and energy transfers and describe examples of important chemical reactions. Science Inquiry Skills <ul style="list-style-type: none"> design questions that can be investigated using a range of inquiry skills. Design methods that include the control and accurate measurement of variables and systematic collection of data and describe how they considered ethics and safety. Evaluate others' methods and explanations from a scientific perspective and use appropriate language and representations when communicating their findings and ideas to specific audiences. 	Science Understanding EARTH AND SPACE SCIENCES <ul style="list-style-type: none"> Explain global features and events in terms of geological processes and timescales. Science Inquiry Skills <ul style="list-style-type: none"> Describe social and technological factors that have influenced scientific developments and predict how future applications of science and technology may affect people's lives. Design methods that include the control and accurate measurement of variables and systematic collection of data and describe how they considered ethics and safety. 	
	General capabilities and Cross curriculum priorities 				
	Key to general capabilities and cross-curriculum priorities	Literacy Numeracy ICT capability Critical and creative thinking Ethical behaviour Personal and social capability Intercultural understanding Aboriginal and Torres Strait Islander histories and cultures Asia and Australia's engagement with Asia Sustainability			
Develop assessment	Assessment	Semester 1		Semester 2	
		Week	Assessment instrument	Week	Assessment instrument
		4-5	Body systems assessment	4-5	Chemical changes investigation
		13-14	Ecosystems assessment	16-17	Earth & space assessment
16-17	Energy transfer test				
Make judgments and use feedback	Moderation	Semester 1		Semester 2	
Teachers moderate assessment task to ensure consistency of judgments.					