













Lanyon High School

Year 9 – Australian Curriculum: Science



Identify curriculum	Achievement standard	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. 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.			
Teaching and learning	Semester overview	Semester 1		Semester 2	
		TERM 1: PHYSICS During this term students learn to use wave and particle models to describe energy transfer through different mediums and examine the usefulness of each model for explaining phenomena TERM 2: EARTH AND SPACE SCIENCES During this term students will learn to represent the carbon cycle and examine how key processes including combustion, photosynthesis and respiration rely on interactions between Earth's spheres Science Inquiry Skills <ul style="list-style-type: none">Analyse trends in data, identify relationships between variables and reveal inconsistencies in results.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 as a Human Endeavour <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.		TERM 3: BIOLOGY During this term students will learn to compare the role of body systems in regulating and coordinating the body's response to a stimulus, and describe the operation of a negative feedback mechanism TERM 4: CHEMISTRY This term students will explain how the model of the atom changed following the discovery of electrons, protons and neutrons and describe how natural radioactive decay results in stable atoms.. 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.Analyse their methods and the quality of their data, and explain specific actions to improve the quality of their evidence.	
	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
		5-7	Light and Sound Assessment	9	Body systems Assessment
		9	Energy Transfer Test	13	Chemical changes investigation
		16-17	Earth and Space Assessment	16-17	Chemistry Test
Make judgments and use feedback	Moderation	Semester 1		Semester 2	
		Teachers moderate assessment tasks to ensure consistency of judgments.			