

# Lanyon High School



## Year 8 – Australian Curriculum: Science

Identify curriculum	Achievement standard	By the end of Year 8, students compare physical and chemical changes and use the particle model to explain and predict the properties and behaviours of substances. They identify different forms of energy and describe how energy transfers and transformations cause change in simple systems. They compare processes of rock formation, including the timescales involved. They analyse the relationship between structure and function at cell, organ and body system levels. Students examine the different science knowledge used in occupations. They explain how evidence has led to an improved understanding of a scientific idea and describe situations in which scientists collaborated to generate solutions to contemporary problems. They reflect on implications of these solutions for different groups in society. Students identify and construct questions and problems that they can investigate scientifically. They consider safety and ethics when planning investigations, including designing field or experimental methods. They identify variables to be changed, measured and controlled. Students construct representations of their data to reveal and analyse patterns and trends, and use these when justifying their conclusions. They explain how modifications to methods could improve the quality of their data and apply their own scientific knowledge and investigation findings to evaluate claims made by others. They use appropriate language and representations to communicate science ideas, methods and findings in a range of text types.							
Teaching and learning	Term overview	Term 1		Term 2		Term 3		Term 4	
	<b>Science Understanding</b> <b>CHEMISTRY</b> <ul style="list-style-type: none"> <li>- States of matter and the particle model</li> <li>- Atomic theory and the periodic table</li> <li>- Elements, mixtures and compounds</li> <li>- Physical and chemical changes</li> </ul> <b>Science Inquiry Skills</b> <ul style="list-style-type: none"> <li>- Identity and construct questions</li> <li>- consider safety and ethics when planning investigations</li> <li>- construct representations of their data to reveal and analyse patterns and trends</li> <li>- evaluating and communicating</li> </ul> <b>Science as a Human Endeavour</b> <ul style="list-style-type: none"> <li>- Creating new materials</li> </ul>		<b>Science Understanding</b> <b>BIOLOGY</b> <ul style="list-style-type: none"> <li>- Cells, organs, organ systems, organisms</li> <li>- Microscopes</li> <li>- Sexual and asexual reproduction</li> </ul> <b>Science Inquiry Skills</b> <ul style="list-style-type: none"> <li>- Identity and construct questions</li> <li>- consider safety and ethics when planning investigations</li> <li>- construct representations of their data to reveal and analyse patterns and trends</li> <li>- evaluating and communicating</li> </ul> <b>Science as a Human Endeavour</b> <ul style="list-style-type: none"> <li>- Cells, disease, and health care</li> </ul>		<b>Science Understanding</b> <b>Geology</b> <ul style="list-style-type: none"> <li>- Rock types and formation</li> <li>- Forces and energy involved in rock formation</li> <li>- Ores, minerals and mining</li> </ul> <b>Science Inquiry Skills</b> <ul style="list-style-type: none"> <li>- Identity and construct questions</li> <li>- consider safety and ethics when planning investigations</li> <li>- construct representations of their data to reveal and analyse patterns and trends</li> <li>- evaluating and communicating</li> </ul> <b>Science as a Human Endeavour</b> <ul style="list-style-type: none"> <li>- Ores, minerals and mining</li> </ul>		<b>Science Understanding</b> <b>PHYSICS</b> <ul style="list-style-type: none"> <li>- Forms of energy</li> <li>- Energy transfer as part of a system</li> </ul> <b>Science Inquiry Skills</b> <ul style="list-style-type: none"> <li>- Identity and construct questions</li> <li>- consider safety and ethics when planning investigations</li> <li>- construct representations of their data to reveal and analyse patterns and trends</li> <li>- evaluating and communicating</li> </ul> <b>Science as a Human Endeavour</b> <ul style="list-style-type: none"> <li>- Energy efficiency and smart design</li> </ul>		
	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	Term 1		Term 2		Term 3		Term 4	
		Week	Assessment instrument	Week	Assessment instrument	Week	Assessment instrument	Week	Assessment instrument
		4	Physical and chemical change assessment	4	Cells and disease assessment	4	Rocks assessment	4	Energy assessment
		7	Chemistry test	All semester	Ongoing continuous assessment	7	Ongoing continuous assessment	7	Ongoing continuous assessment
Make judgments and use feedback	Moderation	Term 1		Term 2		Term 3		Term 4	
		Teachers moderate assessment task to ensure consistency of judgments.							