

Contextualised course title: LEVEL 1 Science - Engineering Solutions	Credits: 20+
Learning areas: Science	

What is this course about?		
<p>During this course, you will explore how scientific principles and skills can be applied to solve real world problems. This course is a mix of Earth science, biology, chemistry and physics.</p>		
What sort of things will I do?		
<p>Science is a way of investigating, understanding, and explaining our natural, physical world and the wider universe. It involves generating and testing ideas, gathering evidence – including by making observations, carrying out investigations and modelling, and communicating and debating with others – in order to develop scientific knowledge, understanding, and explanations. Scientific progress comes from logical, systematic work and from creative insight, built on a foundation of respect for evidence. Different cultures and periods of history have contributed to the development of science.</p>		
Learning capabilities/ critical skills		
<table border="0"> <tr> <td data-bbox="124 1173 478 1364"> Decision-making skills Logical argument Critical thinking Problem solving and creativity Computer literacy Teamwork </td> <td data-bbox="804 1173 1267 1397"> Communication and interpersonal skills Observation and analysis Sorting/classifying Inferring Predicting Experimenting Practical scientific and statistical skills </td> </tr> </table>	Decision-making skills Logical argument Critical thinking Problem solving and creativity Computer literacy Teamwork	Communication and interpersonal skills Observation and analysis Sorting/classifying Inferring Predicting Experimenting Practical scientific and statistical skills
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Science Threshold Concepts
<p>Science is informed by current scientific theories and aims to collect evidence that will be interpreted through processes of logical argument.</p> <p>Scientists develop and carry out complex investigations, including using models</p> <p>Apply their understanding of science to evaluate both popular and scientific texts (including visual and numerical literacy).</p> <p>Develop an understanding of socio-scientific issues by gathering relevant scientific information in order to draw evidence-based conclusions and to take action where appropriate.</p>

Science standards available (possible range - would expect 20 - 24 credits)

NCEA Level	Standard Number	Name of standard	Credits	L1 Lit	L1 Num
1	AS90941	Investigate implications of electricity and magnetism for everyday life	4		y
1	AS90943	Investigate implications of heat for everyday life	4		y
1	AS90942	Investigate implications of wave behaviour for everyday life	4		y
1	AS90946	Investigate the implications of the properties of metals for their use in society	4		
1	AS90949	Investigate life processes and environmental factors that affect them	4		
1	90931	Demonstrate understanding of the chemistry in a technological application	3	y	
1	90936	Demonstrate understanding of the physics of an application	2	y	
1	AS90935	Carry out a practical physics investigation that leads to a linear mathematical relationship, with direction	4		y
1	AS90925	Carry out a practical investigation in a biological context, with direction	4		y
1	AS90926	Report on a biological issue	3	y	
1	AS90940	Demonstrate understanding of aspects of mechanics	4		
1	AS90948	Demonstrate understanding of biological ideas relating to genetic variation	4	y	