MINISTRY OF EDUCATION
TE TĀHUHU O TE MĀTAURANGA

Chemistry and Biology Learning Matrix

Curriculum Level 6

Science Whakataukī:

Mā te whakaaro nui e hanga te whare;	*Big Ideas create the house;*
mā te mātauranga e whakaū	*knowledge maintains it.*

Big Ideas			
Chemistry and Biology use a variety of inquiry approaches to gain understandings	**Matter and energy flow through biological systems**	**Properties of matter are determined by interactions of particles**	**All living things are interconnected**
Significant Learning			
At Curriculum Level 6, ākonga will…			

- recognise differences, as well as similarities, in biological and chemical inquiry practices
- engage with different perspectives to inform Chemistry and Biology inquiry approaches
- consider patterns in the ways that chemical reactions rearrange atoms and redistribute energy
- explore the implications of the conservation of mass
- explore how the impact of chemicals and their derivatives can change depending on the state, quantity, and location of the chemical species
- make connections between biological and chemical interactions when nutrients cycle and energy flows
- explore impacts of disruptions on interrelationships within an ecosystem
- consider how genetic variation arises and its effect on resilience in biological systems
- explore ways that breakthroughs in chemical and biological knowledge have furthered understandings in related disciplines
- explore how new materials can be developed to meet the needs of a sustainable future.