

Planning assistance for Kea investigations aligned to NZ Curriculum and NCEA

Investigate.....	Learning area	Curriculum learning Outcome/s	NCEA Level and Number	NCEA achievement objective E = external I = internal
<ul style="list-style-type: none"> • The significance of kea to Maori both in mythology, historically and currently • How schools and other educational institutions access information about conservation in general and kea particular. Do they see it as important? • Public perceptions about kea and the need for public education about kea to both citizens of, and visitors to, NZ. • The history of kea in the Southern Alps and their relationships with landowners and visitors since the area was first settled. • How media influence peoples perceptions about kea. • Literature, music and art which focus on kea. • Human introduced hazards for kea populations and how they can be overcome. 	Social science/ Studies	<p>Understand how the ways in which leadership of groups is acquired and exercised have consequences for communities and societies. (L. 4)</p> <p>Understand how people pass on and sustain culture and heritage for different reasons and that this has consequences for people. (L. 4)</p> <p>Understand how people's management of resources impacts on environmental and social sustainability. (L. 5)</p> <p>Understand how people interact with natural and cultural environments and that this interaction has consequences. (L. 6)</p> <p>Understand how people's perceptions of and interactions with natural and cultural environments differ and have changed over time. (L. 7 - Geography)</p>	1.2 3.2	<p>Describe peoples participation in society (E)</p> <hr/> <p>Examine people's responses to challenges facing society (E)</p>

<ul style="list-style-type: none"> • Research into substances that repel kea to help in pest control in their habitat. • Construction of a predator control device that is kea proof. 	<p>Technology</p>	<p>Undertake planning that includes reviewing the effectiveness of past actions and resourcing, exploring implications for future actions and accessing of resources, and consideration of stakeholder feedback, to enable the development of an outcome. (L. 4)</p>	<p>1.3</p> <p>2.4</p>	<p>Develop an outcome by widening the use of an existing technology. (I)</p> <p>Examine how technological practice is influenced by responsibilities to the wider community. (E)</p>
<ul style="list-style-type: none"> • The current situation with kea populations in NZ. Where are they? What is their status? Are there problems? • The diet of captive kea compared to the natural diet. • The breeding habits of the kea. • The environment which is the kea's natural habitat and the challenges it presents. • The unique features of kea, particularly their intelligence. • The issues and difficulties of managing kea in captivity. • The implications of 1080, the arguments for and against. Debate. • The need for and practicality of future nest egg programmes for kea such as that for kiwi. 	<p>Science</p>	<p>Explain how living things are suited to their particular habitat and how they respond to environmental changes, both natural and human-induced. (L. 4)</p> <p>Investigate the interdependence of living things (including humans) in an ecosystem. (L. 5)</p> <p>Investigate the impact of natural events and human actions on a New Zealand ecosystem. (L. 6)</p> <p>Explore ecological distribution patterns and explain possible causes for these patterns. (L. 7)</p>	<p>1.1, 2.1, 3.1</p> <p>1.2,</p> <p>2.2</p> <p>3.2.</p>	<p>Carry out a practical science investigation with direction/supervision/guidance. (I)</p> <p>Process information to describe a use of science knowledge with direction (I)</p> <p>Research information to present a scientific report (I)</p> <p>Research a current scientific controversy.(I)</p>
<ul style="list-style-type: none"> • The genetic issues that would be relevant if captive breeding of kea was to take place in the future. 		<p>Describe the basic processes by which genetic information is passed from one generation to the other. (L. 5)</p> <p>Explore patterns in the inheritance of genetically controlled characteristics. Explain the importance of variation within a changing environment. (L. 6)</p> <p>Understand that DNA and the environment interact in gene expression. Explain how the interaction between ecological factors and natural selection leads to genetic changes within populations. (L. 7)</p> <p>Understand how humans manipulate the transfer of genetic information from one generation to the next and make informed judgements about the social, ethical, and biological implications relating to this manipulation. (L. 8)</p>	<p>3.2.</p> <p>3.3</p>	<p>Describe genetic processes (E)</p>