

Achievement Standard

Subject Reference	Education for Sustainability 3.2		
Title	Evaluate measures that may be taken to sustain and/or improve a biophysical environment		
Level	3	Credits	4
		Assessment	Internal
Subfield	Science		
Domain	Environmental Sustainability		
Status	Registered	Status date	20 November 2014
Planned review date	31 December 2019	Date version published	17 November 2016

This achievement standard involves evaluating measures that may be taken to sustain and/or improve a biophysical environment.

Achievement Criteria

Achievement	Achievement with Merit	Achievement with Excellence
<ul style="list-style-type: none"> Evaluate measures that may be taken to sustain and/or improve a biophysical environment. 	<ul style="list-style-type: none"> Evaluate, in depth, measures that may be taken to sustain and/or improve a biophysical environment. 	<ul style="list-style-type: none"> Critically evaluate measures that may be taken to sustain and/or improve a biophysical environment.

Explanatory Notes

- This achievement standard is aligned with *The New Zealand Curriculum*, Learning Media, Ministry of Education, 2007, and is related to learning objective 8.1 in the *Teaching and Learning Guide for Education for Sustainability*, Ministry of Education, at <http://seniorsecondary.tki.org.nz>.

This standard is also derived from *Te Marautanga o Aotearoa*. For details of *Te Marautanga o Aotearoa* achievement objectives to which this standard relates, see the [Papa Whakaako](#) for the relevant learning area.

- 2 *Evaluate measures that may be taken to sustain and/or improve a biophysical environment* involves:
- carrying out research and/or a practical inquiry to:
 - analyse the characteristics of a biophysical environment
 - analyse the nature of the relationship between humans and the biophysical environment in relation to aspects of sustainability.
 - analysing the potential of possible measures that sustain and/or improve the biophysical environment now and for the future
 - drawing conclusions about which measure(s) may be most effective in terms of sustaining and/or improving the biophysical environment.

Evaluate, in depth, measures that may be taken to sustain and/or improve a biophysical environment involves:

- drawing informed conclusions based on examples and evidence about which measure(s) may be most effective in terms of sustaining and/or improving a biophysical environment.

Critically evaluate measures that may be taken to sustain and/or improve a biophysical environment involves:

- drawing insightful conclusions about the effectiveness of the measures with reference to aspects of sustainability. The conclusions may include projections of future impacts and discussion of wider implications of the measures.

- 3 Sustainability involves the development of ways of thinking and acting to meet the needs of the present generation without compromising the ability of future generations (of all living things) to meet their own needs. In Aotearoa New Zealand, sustainability reflects, wherever possible, consideration of Māori concepts and values relating to the environment, which may vary between hapū and between iwi.

- 4 The aspects of sustainability are:

- environmental
- social
- cultural
- economic.

These terms are defined and explained in the *Teaching and Learning Guide for Education for Sustainability*, Ministry of Education, at <http://seniorsecondary.tki.org.nz/index.php/Social-sciences/Education-for-sustainability/Key-concepts/Aspects-of-sustainability>.

- 5 *Measures* may be social, cultural, economic, and/or technological. They are put in place to resolve a sustainability issue and may be evaluated for their effectiveness in addressing aspects of sustainability.
- 6 *A biophysical environment* relates to the interactions between a physical environment and the biological life forms within the environment. The biophysical environment could be a natural environment or a built environment, or some combination of the two. The physical environment may be a geological, atmospheric, hydrological or climatic system.

- 7 An *environment* refers to a definable area such as an urban community, estuary, national park, or farm, or a larger area such as an island, country or planet Earth.
 - 8 Relationship between humans and the biophysical environment refers to the nature of the interactions between humans and a biophysical environment and the implications for a sustainable future. Interrelationships may be those that promote or disrupt the sustainability of an environment.
 - 9 Conditions of Assessment related to this achievement standard can be found at www.tki.org.nz/e/community/ncea/conditions-assessment.php.
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Quality Assurance

- 1 Providers and Industry Training Organisations must have been granted consent to assess by NZQA before they can register credits from assessment against achievement standards.
- 2 Organisations with consent to assess and Industry Training Organisations assessing against achievement standards must engage with the moderation system that applies to those achievement standards.

Consent and Moderation Requirements (CMR) reference

0233