

## Achievement Standard

<b>Subject Reference</b>	Biology 1.4				
<b>Title</b>	Describe ecological characteristics found in two biological communities				
<b>Level</b>	1	<b>Credits</b>	3	<b>Assessment</b>	Internal
<b>Subfield</b>	Science				
<b>Domain</b>	Biology				
<b>Status</b>	Registered		<b>Status date</b>	5 November 2007	
<b>Planned review date</b>	28 February 2009		<b>Date version published</b>	5 November 2007	

This achievement standard involves the description of ecological characteristics found in two biological communities.

### Achievement Criteria

<b>Achievement</b>	<b>Achievement with Merit</b>	<b>Achievement with Excellence</b>
<ul style="list-style-type: none"> <li>Describe ecological characteristics found in two biological communities.</li> </ul>	<ul style="list-style-type: none"> <li>Explain similarities or differences in ecological characteristics in two biological communities.</li> </ul>	<ul style="list-style-type: none"> <li>Discuss similarities or differences in ecological characteristics in two biological communities.</li> </ul>

### Explanatory Notes

- 1 This achievement standard is derived from *Biology in the New Zealand Curriculum*, Learning Media, Ministry of Education, 1994, p. 14, achievement objective 6.1 (a).
- 2 Procedures outlined in *Safety and Science: A Guidance Manual for New Zealand Schools*, Learning Media, Ministry of Education, 2000, should be followed. Investigations should comply with the Animal Welfare Act 1999, as outlined in *Caring for Animals: A Guide for Teachers, Early Childhood Educators, and Students*, Learning Media, Ministry of Education, 1999.
- 3 The chosen *communities* should show similarities and differences, eg:
  - pasture/roadside grass communities
  - exposed rocky shore/sheltered rocky shore
  - stream in an industrial area/stream in a rural area
  - pine forest/native bush
  - mud flats/sandy beach.

- 4 Information about the two communities could come from direct observations, collection of field data, tables, graphs, resource sheets, photos, videos, websites, reference texts.
- 5 *Ecological characteristics* could relate to: food chains/webs, trophic levels, variety of organisms (diversity), interrelationships (parasitism, mutualism), density, distribution, distribution pattern, species dominance.
- 6 *Similarities or differences in the ecological characteristics* must be related to environmental factors, eg moisture, light, food availability, competition, examples of human intervention (mowing, trampling), shelter, wave action, predation, grazing.
- 7 Terms:
  - *Describe* requires the student to define, use annotated diagrams, give characteristics of, or an account of.
  - *Explain* requires the student to provide a reason as to how or why something occurs.
  - *Discuss* requires the student to show understanding by linking biological ideas. It may involve students in elaborating, applying, justifying, relating, evaluating, comparing and contrasting, and analysing.

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## Quality Assurance

- 1 Providers and Industry Training Organisations must be accredited by NZQA before they can register credits from assessment against achievement standards.
- 2 Accredited providers and Industry Training Organisations assessing against achievement standards must engage with the moderation system that applies to those achievement standards.

Accreditation and Moderation Action Plan (AMAP) reference

0226