

Achievement Standard

Subject Reference Biology 1.4

Title Describe ecological characteristics found in two biological communities

Level 1 **Credits** 3 **Assessment** Internal

Subfield Science

Domain Biology

Status Registered **Status date** 5 November 2007

Planned review date 28 February 2009 **Date version published** 5 November 2007

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

Achievement Criteria

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

Explanatory Notes

- 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).
- 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.
- 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.

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