

## Achievement Standard

**Subject Reference** Biology 3.4

**Title** Describe animal behaviour and plant responses in relation to environmental factors

**Level** 3 **Credits** 4 **Assessment** External

**Subfield** Science

**Domain** Biology

**Registration date** 1 November 2005 **Date version published** 1 November 2005

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This achievement standard involves the description of animal behaviour and plant responses in relation to environmental factors.

### Achievement Criteria

Achievement	Achievement with Merit	Achievement with Excellence
<ul style="list-style-type: none"><li>Describe animal behaviour and plant responses in relation to environmental factors.</li></ul>	<ul style="list-style-type: none"><li>Describe animal behaviour and plant responses in relation to environmental factors.</li><li>Explain animal behaviour or plant responses in relation to environmental factors.</li></ul>	<ul style="list-style-type: none"><li>Describe animal behaviour and plant responses in relation to environmental factors.</li><li>Discuss animal behaviour or plant responses in relation to environmental factors.</li></ul>

### Explanatory Notes

- This achievement standard is derived from *Biology in the New Zealand Curriculum*, Learning Media, Ministry of Education, 1994, p. 28, achievement objective 8.1 (a).
- Animal behaviour and plant responses* will be selected from those relating to:
  - orientation (tropisms, nastic responses, taxes, kineses, homing, migration)
  - timing (annual, daily, lunar, tidal)

- interspecific relationships (predation, parasitism, mutualism, commensalism, competition for resources)
  - intraspecific relationships (territoriality, cooperative interactions, reproductive behaviours, hierarchical behaviour, competition for resources).
- 3 The relationship of environmental factors to behaviour/response may be in terms of the process involved or the adaptive significance.
- 4 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 justifying, relating, evaluating, comparing and contrasting, and analysing.
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### Quality Assurance

- 1 Providers and Industry Training Organisations must be accredited by the Qualifications Authority 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