

## Achievement Standard

**Subject Reference** Biology 3.6

**Title** Demonstrate understanding of trends in human evolution

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

**Subfield** Science

**Domain** Biology

**Status** Registered      **Status date** 4 December 2012

**Planned review date** 31 December 2020      **Date version published** 17 November 2016

This achievement standard involves demonstrating understanding of trends in human evolution.

### Achievement Criteria

Achievement	Achievement with Merit	Achievement with Excellence
<ul style="list-style-type: none"> <li>Demonstrate understanding of trends in human evolution.</li> </ul>	<ul style="list-style-type: none"> <li>Demonstrate in-depth understanding of trends in human evolution.</li> </ul>	<ul style="list-style-type: none"> <li>Demonstrate comprehensive understanding of trends in human evolution.</li> </ul>

### Explanatory Notes

- 1 This achievement standard is derived from *The New Zealand Curriculum*, Learning Media, Ministry of Education, 2007, Level 8 within the Science learning area. It is aligned with the achievement objectives in the following two strands:

Nature of Science strand:

- Understanding about science, 'Understand that scientists have an obligation to connect their new ideas to current and historical scientific knowledge and to present their findings for peer review and debate'
- Investigating in science, 'Develop and carry out investigations that extend their science knowledge, including developing their understanding of the relationship between investigations and scientific theories and models'.

Living World strand:

- Life processes, ecology, and evolution, 'Explore the evolutionary processes that have resulted in the diversity of life on Earth and appreciate the place and impact of humans within these processes'.

It is also related to the material in the *Teaching and Learning Guide for Biology*, Ministry of Education, 2010 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 *Demonstrate understanding* involves using biological ideas to describe trends in human evolution.

*Demonstrate in-depth understanding* involves using biological ideas to explain how or why trends in human evolution occur.

*Demonstrate comprehensive understanding* involves linking biological ideas about trends in human evolution. The linking of ideas may involve justifying, relating, evaluating, comparing and contrasting, and analysing using scientific evidence.

- 3 *Trends in human evolution* refers to change over a period of time in relation to:
- human biological evolution
  - human cultural evolution
  - patterns of dispersal of hominins. Hominins refers to living and fossil species belonging to the human lineage. This is a subgroup of hominids, a group which includes both humans and the great apes.
- 4 Trends in human biological evolution begin with early bipedal hominins and may require comparison with living hominids. These trends involve:
- skeletal changes linked to bipedalism
  - changes in skull and endocranial features
  - changes in the manipulative ability of the hand.
- 5 Trends in human cultural evolution involve:
- use of tools (stone, wood, bone)
  - use of fire
  - clothing
  - abstract thought (communication, language, art)
  - food-gathering (hunter-gatherer, domestication of plants and animals)
  - shelter (caves, temporary settlement, permanent settlement).
- 6 Interpretations of the trends in human evolution are based on current scientific evidence which is widely accepted and presented in peer-reviewed scientific publications.
- 7 Assessment Specifications for this achievement standard can be accessed through the Biology Resources page found at [www.nzqa.govt.nz/ncea/resources](http://www.nzqa.govt.nz/ncea/resources).
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### Replacement Information

This achievement standard replaced AS90719.

**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