

## Achievement Standard

<b>Subject Reference</b>	Earth and Space Science 3.3		
<b>Title</b>	Investigate the evidence related to dating geological event(s)		
<b>Level</b>	3	<b>Credits</b>	4
		<b>Assessment</b>	Internal
<b>Subfield</b>	Science		
<b>Domain</b>	Earth and Space Science		
<b>Status</b>	Registered	<b>Status date</b>	04 December 2012
<b>Planned review date</b>	31 December 2019	<b>Date version published</b>	17 November 2016

This achievement standard involves investigating the evidence related to dating geological event(s).

### Achievement Criteria

Achievement	Achievement with Merit	Achievement with Excellence
<ul style="list-style-type: none"> <li>Investigate the evidence related to dating geological event(s).</li> </ul>	<ul style="list-style-type: none"> <li>Investigate in depth the evidence related to dating geological event(s).</li> </ul>	<ul style="list-style-type: none"> <li>Investigate comprehensively the evidence related to dating geological event(s).</li> </ul>

### Explanatory Notes

- This achievement standard is derived from *The New Zealand Curriculum*, Learning Media, Ministry of Education, 2007, Level 8, and is related to the material in the *Teaching and Learning Guide for Earth and Space Science*, Ministry of Education, 2010 at <http://seniorsecondary.tki.org.nz>. The standard is aligned to the Earth systems and Interacting systems achievement objective of the Planet Earth and Beyond strand and the Nature of Science strand.

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.

- Investigate* involves:
  - explaining geological event(s)
  - explaining a range of evidence related to dating geological event(s).

*Investigate in depth* involves:

- explaining, in detail, how a range of key evidence contributes to the understanding of the dating of geological event(s).

*Investigate comprehensively* involves:

- justifying how a range of key evidence contributes to the understanding of the dating of the geological event(s)
  - explaining how the cross-correlation of the evidence contributes to the understanding of the dating of geological event(s).
- 3 *Evidence* may include – radiometric dating, stratigraphy, unconformities, fossils and fossil succession, stable isotopes, ice cores, sediment cores, tree ring data, magnetism in rocks, rock composition, relative dating methods, and other processes eg weathering and erosion.
- 4 Conditions of Assessment related to this achievement standard can be found at <http://ncea.tki.org.nz/>.
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### **Replacement Information**

This achievement standard replaced AS90731 and unit standard 21614.

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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