

Achievement Standard

Subject Reference	Physics, Earth and Space Science 1.1		
Title	Demonstrate understanding of human-induced changes within the Earth system		
Level	1	Credits	5
		Assessment	Internal
Subfield	Science		
Domain	Science - Core		
Status	Registered	Status date	3 December 2021
Planned review date	31 December 2022	Date version published	14 December 2021

Students will demonstrate understanding of the changes that occur within the Earth system as a result of human activity.

Achievement Criteria

Achievement	Achievement with Merit	Achievement with Excellence
<ul style="list-style-type: none"> Demonstrate understanding of human-induced changes within the Earth system 	<ul style="list-style-type: none"> Interpret human-induced changes within the Earth system 	<ul style="list-style-type: none"> Analyse human-induced changes within the Earth system

Explanatory Notes

1 *Demonstrate understanding of human-induced changes within the Earth system* involves:

- identifying changes within the Earth system as a result of a human activity
- describing the changes occurring within the spheres and their effects on the Earth system.

Interpret human-induced changes within the Earth system involves:

- explaining the processes involved in the causes and effects of human-induced changes on the Earth system.

Analyse human-induced changes within the Earth system involves:

- discussing the implications of human-induced changes on the interconnectedness of the Earth system.

- 2 Examples of *human activities* include:
 - agriculture
 - intensification
 - urbanisation.
 - 3 Changes in the Earth system can be explored from any worldview or cultural position. This could mean viewing the changes through an ao Māori lens, a Pacific lens, or from the perspective of another indigenous knowledge system.
 - 4 Everything in the Earth system can be placed into one of four major subsystems called *spheres*. For this standard, *spheres* relate to the geosphere, hydrosphere, biosphere, and atmosphere.
 - 5 This achievement standard is derived from the Science Learning Area at Level 6 of The New Zealand Curriculum: Learning Media, Ministry of Education, 2007.
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Replacement Information

This achievement standard and AS92045-AS92047 replaced AS90935-AS90939.

Quality Assurance

- 1 Schools and institutions must have been granted consent to assess by NZQA before they can register credits from assessment against achievement standards.
- 2 Schools and institutions with consent to assess must engage with the moderation system that applies to those achievement standards.

Consent and Moderation Requirements (CMR) reference 0233
