

Achievement Standard

Subject Reference Geography 1.8

Title Apply spatial analysis, with direction, to solve a geographic problem

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

Subfield Social Science Studies

Domain Geography

Status Registered **Status date** 30 November 2010

Planned review date 31 December 2014 **Date version published** 30 November 2010

This achievement standard involves applying spatial analysis, with direction, to solve a geographic problem.

Achievement Criteria

| Achievement | Achievement with Merit | Achievement with Excellence |
|--|--|--|
| <ul style="list-style-type: none"> Apply spatial analysis, with direction, to solve a geographic problem. | <ul style="list-style-type: none"> Effectively apply spatial analysis, with direction, to solve a geographic problem. | <ul style="list-style-type: none"> Comprehensively apply spatial analysis, with direction, to solve a geographic problem. |

Explanatory Notes

1 This achievement standard is derived from the second Level 6 Geography achievement objective, of *The New Zealand Curriculum*, Learning Media, Ministry of Education, 2007, and is related to material in the *Teaching and Learning Guide for Geography*, Ministry of Education, 2010 at <http://seniorsecondary.tki.org.nz>.

2 *Apply spatial analysis* typically involves:

- collecting spatial data relevant to the geographic question or problem
- completing simple manipulations of the spatial data to produce a layout related to the question or problem
- describing a valid answer or solution based on the manipulations.

Effectively apply spatial analysis typically involves:

- collecting sufficient spatial data to address the geographic question or problem
- completing simple manipulations of the spatial data to produce an accurate layout related to the question or problem
- explaining a valid answer or solution, based on the manipulations, that is supported by evidence.

Comprehensively apply spatial analysis typically involves:

- fully explaining a valid answer or solution, based on the manipulations, that is supported by detailed evidence.

- 3 *Spatial analysis* involves collecting, manipulating and presenting spatial data for which direction will be given.

With direction refers to being given direction about spatial analysis including the collection, manipulation and presentation of spatial data.

Geographic problem refers to a question or problem (real or simulated) relating to aspects of the natural and/or cultural environment(s), and which includes a spatial dimension.

Collecting spatial data refers to either collecting data with a spatial component in the field or accessing spatial data from other sources.

Layout refers to some kind of map but may also include other visuals such as tables, graphs and images.

Simple manipulations refer to data transformations such as:

- measuring
- layering
- changing the symbols used
- sorting and editing a table
- querying the map
- using coordinate systems
- displaying a graph based on the map.

- 4 Geospatial techniques and/or technology should be used to manipulate and present the spatial data in ways that support problem solving.
- 5 Conditions of Assessment related to this achievement standard can be found at www.tki.org.nz/e/community/ncea/conditions-assessment.php.
-

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.