

## 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 2019      **Date version published** 20 November 2014

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

### Achievement Criteria

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

### 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 <http://ncea.tki.org.nz/Resources-for-Internally-Assessed-Achievement-Standards>.

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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.