

Achievement Standard

Subject Reference Geography 2.8

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

Level 2 **Credits** 3 **Assessment** Internal

Subfield Social Science Studies

Domain Geography

Status Registered **Status date** 17 November 2011

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

Achievement Criteria

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

Explanatory Notes

- This achievement standard is derived from the Level 7 Geography achievement objectives from the Social Sciences learning area of *The New Zealand Curriculum*, Learning Media, Ministry of Education, 2007; and is related to the material in the *Teaching and Learning Guide for Geography*, Ministry of Education, 2010 at <http://seniorsecondary.tki.org.nz>.
- Apply spatial analysis, with guidance, to solve a geographic problem* involves:
 - collecting spatial data relevant to the geographic problem
 - completing manipulations of the spatial data to produce a layout related to the problem
 - explaining an appropriate solution, based on the manipulations, that is supported by evidence.

Effectively apply spatial analysis, with guidance, to solve a geographic problem involves:

- collecting sufficient spatial data to address the geographic problem
- completing manipulations of the spatial data to produce an accurate layout related to the problem
- explaining, in detail, an appropriate solution, based on the manipulations, that is supported by evidence.

Comprehensively apply spatial analysis, with guidance, to solve a geographic problem involves:

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

- 3 *With guidance* refers to the degree of teacher guidance on the type and selection of data and data manipulative geospatial technique provided for students.

Geographic problem refers to a problem relating to aspects of the natural and/or cultural environment(s) at a given location, and which includes a spatial dimension. The problem cannot be a simulation.

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 a map and may also include other visuals such as tables, graphs and images.

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.

Spatial analysis involves collecting, manipulating, and presenting spatial data.

Geospatial techniques should be used to manipulate and present the spatial data in ways that support problem solving. Students may use appropriate technology for the manipulation and presentation of data.

- 4 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 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