

Curriculum [1]



All LEARNZ field trips targeting primary and secondary schools are closely linked to the New Zealand curriculum, in particular science, social studies and geography. They can also be used by other subject teachers.

Key Concepts

3D maps, airport, Canterbury, driverless, flight, forestry, future focus, gadgets, geospatial, GIS, government, GPS, innovation, interactive maps, land use, location based information, maps, Otago, satellite, self driving, Southland, survey, technological change, technological innovation, technology, topographical maps.

The New Zealand Curriculum - NZC

Key Competencies

LEARNZ virtual field trips contribute to the development of all five key competencies:

Key Competencies	Examples of Related Field Trip Components
Thinking	Constructing questions to put to experts during web conferences.
Using language, symbols and texts	Interpreting and making meaning of a variety of language and symbols in the Background Pages and throughout the web site.
Managing self	Numerous content-related Activities provide students with chances to engage with the material and create their own interpretation of the content.

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Relating to others	Videos connect students with a range of expert opinions. Students listen actively when seeking answers to video questions.
Participating and contributing	LEARNZ Virtual Field Trips are an ideal medium for group-based topic inquiry. They also enable students to transfer new learning into the context of their own communities where they are encouraged to take action.

(See page 12-13 NZC 2007)

Values

The *Land, Sky and Space* field trip encourages, models and explores these values:

- innovation, inquiry and curiosity
- ecological sustainability
- community and participation

(see page 10 NZC 2007).

E-learning and pedagogy

The *Land, Sky and Space* field trip directly involves learning that is supported by information and communication technology (ICT).

In particular, the trip will:

- Assist the making of connections by enabling students to enter and explore new learning environments, overcoming barriers of distance and time.
- Facilitate shared learning by enabling students to join or create communities of learners that extend well beyond the classroom.
- Enhance opportunities to learn by offering students virtual experiences and tools that save them time, allowing them to take their learning further (Page 36 NZC 2007).

Social Science

Strand	Achievement Aims	Background Pages	Related Activities
Social Studies	Continuity and Change	<ul style="list-style-type: none">• [2]All	<ul style="list-style-type: none">• [3]Activities



Level 2: Understand how time and change affect peoples' lives

Level 4: Understand that events have causes and effects

Place and Environment

Level 2 Understand how places influence people and people influence places

Level 3 Understand how people view and use places differently

Level 5 Understand how people's management of resources impacts on environmental and social sustainability

Identity, Culture, and Organisation

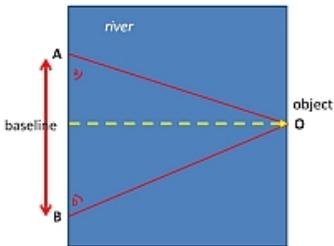
Level 4: Understand how formal and informal groups make decisions that impact on communities

Level 5: Understand how systems of government in New Zealand operate and affect people's lives, and how they compare with another system

Technology

Strand	Achievement Aims	Background Pages	Related Activities
Nature of Technology 	Nature of Technology <ul style="list-style-type: none"> Level 1-3; Understand how technological development expands human possibilities and how technology draws on knowledge from a wide range of disciplines. 	<ul style="list-style-type: none"> [4]All 	<ul style="list-style-type: none"> Acitivities

Mathematics

Strand	Achievement Aims	Background Pages	Related Activities
Number and Algebra 	<p>Level 3: Use a co-ordinate system or the language of direction and distance to specify locations and describe paths</p> <p>Level 4: Communicate and interpret locations and directions, using compass directions, distances, and grid references</p> <p>Level 5: Apply trigonometric ratios and Pythagoras'</p>	<ul style="list-style-type: none"> All 	<ul style="list-style-type: none"> [3]Field Trip Number Challenge - Word [5] (31k) PDF [6] (125k) Surveying Maths Problem - Word [7] (87k) PDF [8] (485k)

theorem in two dimensions

English

The selected processes and strategies indicators used in the table below are from Level three of the NZC, but aim to cover indicators from levels two to four.

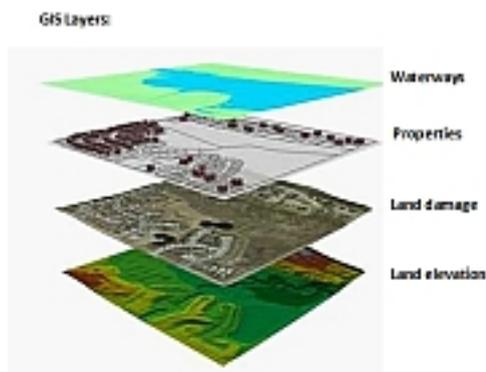
Strand	Processes and Strategies Indicators	Example of Related Field Trip Component
<p>Speaking, Writing and Presenting</p> 	<ol style="list-style-type: none"> 1. uses an increasing understanding of the connections between oral, written, and visual language when creating texts 2. creates a range of texts by integrating sources of information and processing strategies with increasing confidence 	<ol style="list-style-type: none"> 1. making the connection between Audioconferences, Background Pages, Videos, and own discussion when generating written responses 2. assimilate information from Audioconferences, Background Pages, Videos, and Ask-an-Expert to create a range of texts
<p>Listening, Reading and Viewing</p> 	<ol style="list-style-type: none"> 1. selects and reads for enjoyment and personal fulfilment 2. recognises connections between oral, written, and visual language 3. integrates sources of information and prior knowledge confidently to make sense of increasingly varied and complex texts 4. thinks critically about texts with increasing understanding and confidence 	<ol style="list-style-type: none"> 1. printed copies of Background Pages could be part of classroom library 2. making links between Audioconferences, Background Pages, and Videos 3. Audioconferences, Audioconference Backchannel, Videos, Diaries, and Ask-an-Expert can be used to make sense of Background Pages and Diaries and generate questions to put to experts for further

Geography

Level 6: Understand that natural and cultural environments have particular characteristics and how environments are shaped by processes that create spatial patterns

Level 7: Understand how the processes that shape natural and cultural environments change over time, vary in scale and from place to place, and create spatial patterns

Level 8: Understand how interacting processes shape natural and cultural environments, occur at different rates and on different scales, and create spatial variations



NCEA Geography

Level 1

- 1.6 Describe aspects of a contemporary New Zealand geographic issue (AS91012)
- 1.8 Apply spatial analysis, with direction, to solve a geographic problem (AS91014)

Level 2

- 2.6 Explain aspects of a contemporary New Zealand geographic issue (AS91245)
- 2.8 Apply spatial analysis, with guidance, to solve a geographic problem (AS91247)

Level 3

- 3.6 Analyse a contemporary geographic issue and evaluate courses of action (AS90706)

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Links

- [1] <http://www.learnz.org.nz/location182/curriculum>
- [2] <http://www.learnz.org.nz/scienceonice144/bg-standard>
- [3] <http://www.learnz.org.nz/scienceonice144/activities>
- [4] <http://www.learnz.org.nz/argofloats142/bg-standard-f/the-argo-float-programme>
- [5] http://www.learnz.org.nz/sites/learnz.org.nz/files/field-trip-number-challenge_0.doc
- [6] http://www.learnz.org.nz/sites/learnz.org.nz/files/field-trip-number-challenge_0.pdf
- [7] <http://www.learnz.org.nz/sites/learnz.org.nz/files/surveying-math-problem.doc>
- [8] <http://www.learnz.org.nz/sites/learnz.org.nz/files/surveying-math-problem.pdf>