**NZQA**

**Approved**

Achievement standard: 91009 Version 3

Standard title: Demonstrate geographic understanding of the sustainable use of an environment

Level: 1

Credits: 3

Resource title: Retail complex for the future

Resource reference: Geography VP-1.3 v2

Vocational pathway: Services Industries

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| Quality assurance status | These materials have been quality assured by NZQA. NZQA Approved number A-A-02-2015-91009-02-7246 |
| Authenticity of evidence | Assessors/educators must manage authenticity for any assessment from a public source, because learners may have access to the assessment schedule or exemplar material.Using this assessment resource without modification may mean that learners’ work is not authentic. Assessors/ educators may need to change figures, measurements or data sources or set a different context or topic to be investigated or a different text to read or perform. |

Vocational Pathway Assessment Resource

Achievement standard: 91009

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Learner instructions

# Introduction

This assessment activity requires you to demonstrate geographic understanding of the sustainable use of an environment within the retail sector.

You are going to be assessed on how comprehensively you demonstrate your geographic understanding of the sustainable use of an environment. You need to show that you can process and interpret information, and prepare a presentation that includes the following information:

* why and how the selected environment is used for the purpose of retail
* the consequences of this use on people and the environment
* the extent to which the retail development of this environment is a sustainable use of this environment.

The following instructions provide you with a way to structure your work so you can demonstrate what you have learnt and achieve success in this standard.

Assessor/educator note: It is expected that the assessor/educator will read the learner instructions and modify them if necessary to suit their learners.

# Task

The focus is on the land used by a large retail complex like a shopping mall or a megastore. Select an environment used by a large retail complex such as a Warehouse megastore, a Mitre 10 megastore, or a shopping mall.

Create a presentation that demonstrates your geographic understanding of the sustainable use of this environment for a retail complex.

The sustainability of use means the extent to which the use can be maintained in the future to minimise environmental impacts. Sustainability can involve conserving resources, reducing pollution, and conserving biodiversity, ecosystems, and the landscape.

## Why and how

Describe why and how the selected environment is used by the retail industry by doing the following:

* identify and describe features of this environment that make it well suited for the location of a retail complex. Consider both natural and cultural features. You could answer this by annotating a map of the selected environment
* describe how retail activities use this environment. You may use photographs to support your description.

## Consequences

Describe and fully explain the consequences of the use of this environment as a retail complex on people and on the environment:

* fully explain the consequences of your selected retail complex on people. Use supporting details, named examples, geographic terminology and concepts. Consider positive, negative, long term and short term impacts. People you could include are:
	+ retail workers
	+ local support industries
	+ local infrastructure such as roads etc.
	+ local residents/shoppers
	+ other retail outlets in the area
* fully explain how you selected retail complex impacts on the environment. Use supporting details, named examples, geographic terminology and concepts. Consider positive, negative, long term and short term impacts.

## Sustainability

Describe and fully explain the sustainability or otherwise of the continued use of the environment for your selected retail complex. Use specific detailed evidence, geographic terminology and concepts to support your answers to the following:

* Fully explain the current and possible future actions the retail industry takes to reduce negative impacts on the environment and/or changes it makes that benefit the environment, for example, focus on the actions taken to conserve resources and reduce pollution.
* Is your selected retail complex a sustainable use of this environment? Fully explain your decision with reference to the future use of this environment for retail.

# Resources

Useful websites include:

<http://www.mfe.govt.nz/publications/land/>

<http://www.environmentalpollutioncenters.org/shopping-mall/>

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Assessor/Educator guidelines

# Introduction

The following guidelines are supplied to enable assessors/educators to carry out valid and consistent assessment using this internal assessment resource.

As with all assessment resources, education providers will need to follow their own quality control processes. Assessors/educators must manage authenticity for any assessment from a public source, because learners may have access to the assessment schedule or exemplar material. Using this assessment resource without modification may mean that learners' work is not authentic. The assessor/educator may need to change figures, measurements or data sources or set a different context or topic. Assessors/educators need to consider the local context in which learning is taking place and its relevance for learners.

Assessors/educators need to be very familiar with the outcome being assessed by the achievement standard. The achievement criteria and the explanatory notes contain information, definitions, and requirements that are crucial when interpreting the standard and assessing learners against it.

# Context/setting

This activity requires learners to demonstrate comprehensive geographic understanding of the sustainable use of an environment within the retail sector. The environment will ideally include the surrounding district or region rather than simply the immediate retail complex.

# Conditions

Learners could work independently or in groups to develop their geographic understanding, but they need to create their presentation independently, and will be assessed individually.

# Resource requirements

Provide access to:

* The Resource Management Act 1991: the purpose of the act is to promote the sustainable management of natural and physical resources. In this act, sustainable management means managing the use, development and protection of natural and physical resources in a way that enables people and communities to provide for their social, economic and cultural well-being.
* a map of the selected environment that includes road networks and surrounding businesses, parking areas, etc.
* the internet.

# Additional information

Decide on a format learners will use for their presentation. The presentation should include written descriptions and explanations supported by any combination of maps, photographs and diagrams.

# Assessment schedule: Geography 91009 – Retail complex for the future

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| Evidence/Judgements for Achievement | Evidence/Judgements for Achievement with Merit | Evidence/Judgements for Achievement with Excellence |
| The learner demonstrates geographic understanding of the sustainable use of an environment used by a retail complex by :* describing why and how people use the selected environment

For example:The learner describes features of the selected environment that led retail developers to establish a mall (why). Features could include accessibility, space for future development, developed or partially developed infrastructure, population to support a retail complex.The learner describes activities in the mall complex (how). This aspect can include uses by the public, retailers and other occupiers of the mall complex.* describing the consequences of this use of the retail complex on both people and environment

For example:The learner describes the consequences on people.*The construction of the mall created a lot of jobs for trades-people in the area like builders and electricians. Students get afterschool jobs in the shops and some of the shops offer apprenticeships in retail. Also, in the mall are jobs for security and maintenance people.** describing the sustainability or otherwise of the selected environment with continued use by the retail industry

For example:The learner describes relevant practices that the mall needs to adopt to ensure it remains sustainable in order to minimise future negative impacts on the environment, including:* + methods to minimise environmental impacts
	+ best practices for continued sustainability of the environment
	+ software programs that control lighting, heating and air conditioning
	+ buildings with energy saving designs e.g. use of more natural lighting and energy efficient daylight panels to promote heat loss in summer and heat gain in winter
	+ how to reduce peak electrical loads to avoid greenhouse gas emissions into the atmosphere
	+ the three R’s, namely reduce, re-use, and recycle.

*The mall has been built to use the natural light. There are panels in the roof that allow light in and this reduces the number of shop lights that are needed on sunny days. The lights are on a special control system that monitors light conditions. This reduces electricity use and shows that the mall is using renewable resources. If the mall continues to make the best use of resources and keeps its systems up-to-date it is a sustainable use of this environment.**The above expected learner responses are indicative only and relate to just part of what is required.* | The learner demonstrates in-depth geographic understanding of the sustainable use of an environment used by a retail complex by:* describing why and how people use the selected environment

For example:The learner describes features of the selected environment that led retail developers to establish a mall (why). Features could include accessibility, space for future development, developed or partially developed infrastructure, population to support a retail complex.The learner describes activities in the mall complex (how). This aspect can include uses by the public, retailers and other occupiers of the mall complex.* explaining the consequences of this use of the retail complex on both people and environment, including specific details

For example: The learner explains the consequences on people.*The construction of the mall resulted in 150 extra jobs available to local trades-people in the area like builders and electricians. In most cases they supported the contractors employed by the commercial building firm, but as they understood the systems used they have received ongoing work from the mall. The shops in the mall have employed many students afterschool and also offer apprenticeships in the retail industry. The mall has provided employment for security and maintenance people who are needed on site at all times.** explaining the sustainability or otherwise of the selected environment with continued use by the retail industry

For example:The learner explains the relevant practices that the mall needs to adopt to ensure it remains sustainable in order to minimise future negative impacts on the environment, including:* + methods to minimise environmental impacts
	+ best practices for continued sustainability of the environment
	+ software programs that control lighting, heating and air conditioning
	+ buildings with energy saving designs e.g. use of more natural lighting and energy efficient daylight panels to promote heat loss in summer and heat gain in winter
	+ how to reduce peak electrical loads to avoid greenhouse gas emissions into the atmosphere
	+ the three R’s, namely reduce, re-use, and recycle.

*The mall follows a policy of reduce, re-use and recycle. One example of reducing is through the use of natural light. There are panels in the roof that allow natural light in and this reduces the number of shop lights that are needed on sunny days. When there is sufficient light the number of shop lights on is reduced. This system that monitors the shop lighting is in all the retail spaces. Solar energy panels are also in the roof providing heating. The reduction in electricity use is considerable, up to 35%, and shows that the mall is effectively using renewable resources – sunlight. If the mall continues to make the best use of resources and keeps its systems up-to-date it is a sustainable use of this environment.**The above expected learner responses are indicative only and relate to just part of what is required.* | The learner demonstrates comprehensive geographic understanding of the sustainable use of an environment used by a retail complex by:* describing why and how people use the selected environment

For example:The learner describes features of the selected environment that led retail developers to establish a mall (why). Features could include accessibility, space for future development, developed or partially developed infrastructure, population to support a retail complex.The learner describes activities in the mall complex (how). This aspect can include uses by the public, retailers and other occupiers of the mall complex.* fully explaining the consequences of this use of the retail complex on both people and environment using geographic terminology, concepts and detailed evidence
* using geographic terminology, concepts and detailed evidence, For example:

The learner uses relevant concepts related to environment, change, interaction, and processes, and sustainability to fully explain, with examples and references, the consequences and/or impacts of the mall on people and the environment.*The mall creates* *a range of employment opportunities. Before construction, the land and infrastructure such as water pipes, drainage etc must be developed. During the construction stage some trades-people from within the community were employed and their work with the mall could continue after construction as ongoing maintenance will be needed. Local electricians were employed by the construction firm and as they are familiar with the electrical systems used in the mall they can provide appropriate support. The number of jobs available varied from 50 to 220, because the construction firm employed a number of its own trades-people and had preferred contractors. After the mall is built employment in the retail sector is available to local people. This offers jobs to school leavers, as well as students still in school. However, the mall development resulted in some of the shops in town closing as they couldn’t compete, and this led to a loss of employment. Some retail workers chose to move to the mall, and in this case the mall hasn’t created a lot of extra employment. Interaction between the community and the mall is clearly evident as the mall functioning requires labour from the community and it offers a range of employment opportunities and services. The increasing retail activity has created a multiplier effect in the community.** fully explaining the sustainability or otherwise of the selected environment with continued use by the retail industry, using geographic terminology, concepts and detailed evidence showing insight

For example:*The planning, building and functioning of the mall followed sustainable practices. The environment was considered at all stages of construction and the current occupants of the mall follow a policy of reduce, re-use and recycle. The use of natural light is an example of how electricity is reduced by up to 35%. Panels in the roof allow natural light in and when this is sufficiently bright the electric light generated reduces with some lights turning off or dimming. Solar energy is also used for heating with panels on the roof. These actions reduce electricity use and shows that the mall is using renewable resources. These practices also show how the mall management is addressing the Resource Management Act which requires ‘retail developments to ensure that potential natural resources meet the reasonable foreseeable needs of future generations, is sustained. Care with construction, including strategies and systems that maximise use of renewable resources, reduce environmental impacts as does recycling on a large scale. The Warehouse store charges for the use of bags to reduce the use of plastic and encourage customers to be aware of impact of plastic on this environment. If all occupants of the mall follow the current policies and maintain the efficiency of the systems put in place the future sustainability of the mall could be guaranteed.**The above expected learner responses are indicative only and relate to just part of what is required.* |

Final grades will be decided using professional judgement based on an examination of the evidence provided against the criteria in the Achievement Standard. Judgements should be holistic, rather than based on a checklist approach.