**NZQA**

**Approved**

Achievement standard: 91052 Version 3

Standard title: Demonstrate understanding of the ways a technological outcome, people, and social and physical environments interact

Level: 1

Credits: 4

Resource title: The long, unglamorous history of the toilet

Resource reference: Generic Technology VP-1.9 v2

Vocational pathway: Construction and Infrastructure

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| Quality assurance status | These materials have been quality assured by NZQA. NZQA Approved number A-A-02-2015-91052-02-7364 |
| 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: 91052

Standard title: Demonstrate understanding of the ways a technological outcome, people, and social and physical environments interact

Level: 1

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Learner instructions

# Introduction

This assessment activity requires you to demonstrate understanding of the ways a technological outcome (flush toilet), people, and social and physical environments interact.

You are going to be assessed on how comprehensively you demonstrate understanding of the ways a technological outcome (flush toilet), people, and social and physical environments interact.

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 history of the toilet is interesting. As a specialist in the subject you’ve been invited to give a talk that describes the impact the introduction of flush toilets had on modern society.

## Gather information

Gather, select, and record relevant information for your talk by considering the following:

* how the flush toilet addressed the need and/or opportunity that arose, for example how did the invention of the flush toilet help lower disease
* the key people who were involved in producing and popularising flush toilets
* the main ways the introduction of flush toilets impacted on or influenced the physical and social environment at the time, for example what impact did the introduction of flush toilets have on hygiene and society?

Focus on gathering information that will enable you to complete your talk such as quotes, photographs, videos and other illustrations.

## Give a talk

In your talk:

* describe the environment at the time flush toilets were introduced, and the need and/or the opportunity that the introduction of flush toilets addressed
* identify who the key people were that played a role in the introduction of flush toilets
* explain how the introduction of flush toilets, and the social and physical environments interact
* discuss the impact that these interactions had on society, for example why have occupations such as plumbers evolved alongside the development of the flush toilet?
* discuss both the successful and unsuccessful ways in which people, the social and physical environment and the introduction of flush toilets interact.

# Resources

Useful website:

<http://didyouknow.org/toilets/>

Useful book:

*Flushed, How the Plumber Saved Civilization*, Atria Books, W. Hodding Carter, 2007.

Useful DVD:

*Kenny*, 2008, directed and produced by Clayton Jacobson, is an Australian comedy film about a portable toilet delivery man.

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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 understanding of the ways a technological outcome (flush toilet), people, and social and physical environments interact.

# Conditions

This is an individual activity. This activity is based on learners giving a talk. Presentation is not restricted to this form. It could also be a computer presentation, an article or a blog or any other suitable format. You may wish to take learner preferences into account in deciding on the format.

# Resource requirements

Learners require access to the internet for research.

# Additional information

Visits to plumbing factories, or visits from plumbers may be helpful.

# Assessment schedule: Generic Technology 91052 – The long, unglamorous history of the toilet

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| Evidence/Judgements for Achievement | Evidence/Judgements for Achievement with Merit | Evidence/Judgements for Achievement with Excellence |
| The learner demonstrates understanding of the ways the development of flush toilets, people, and social and physical environments interact by:* describing the social and historical context of the introduction of flush toilets

For example:The learner describes the sanitary conditions in Victorian society, the government policies and infrastructures, the early reticulated water system.* identifying the people and social and physical environments that are connected to the introduction of flush toilets

For example:The learner identifies John Harrington who invented the first flush toilet, and how the first patent was issued to Alexander Cummings in 1775.* describing the successful and unsuccessful ways in which the introduction of flush toilets, people, and the social and physical environments interact

As an example of a successful interaction:The learner describes how the introduction of flush toilets familiarised the public with hygienic waste disposal.*The above expected learner responses are indicative only and relate to just part of what is required.* | The learner demonstrates in-depth understanding of the ways the development of flush toilets, people, and social and physical environments interact by:* describing the social and historical context of the introduction of flush toilets

For example:The learner describes the sanitary conditions in Victorian society, the government policies and infrastructures, the early reticulated water system.* explaining how the people and the social and physical environments are connected to the introduction of flush toilets

For example:The learner explains how people connected to the introduction of the flush toilet had a significant impact on its emergence, for example the successful installation of Isaiah Rogers’ water closets into a hotel in 1829. * explaining the successful and unsuccessful ways in which the introduction of flush toilets, people, and the social and physical environments interact

For example:The learner explains that duringthe 1800’s, people realised that poor sanitary conditions caused diseases, and therefore having flush toilets and sewer systems to control human waste became a priority for the government and the general public.*The above expected learner responses are indicative only and relate to just part of what is required.* | The learner demonstrates comprehensive understanding of the ways the development of flush toilets, people, and social and physical environments interact by:* describing the social and historical context of the introduction of flush toilets

For example:The learner describes the sanitary conditions in Victorian society, the government policies and infrastructures, the early reticulated water system.* explaining how the people and the social and physical environments are connected to the introduction of flush toilets

For example:The learner explains how people connected to the introduction of the flush toilet had a significant impact on its emergence, for example the successful installation of Isaiah Rogers’ water closets into a hotel in 1829. This made indoor plumbing more popular and desirable for richer people and other hotels.* discussing why the introduction of flush toilets, people, and social and physical environments interact in successful and unsuccessful ways

For example:The learner discussessocieties’ influence on human waste disposal, for example how ancient Romans considered going to the loo as a social event, to share with friends and family, while the Georgians kept the potty in the dining room. Today going to the toilet is a more private affair … The learner discusses interactions with the physical environment, such as prior to the introduction of the sewer system, toilet waste was often dumped into the local water supply resulting in people dying from diseases like cholera …*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.