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

Canterbury, carbon cycle, catchment, changing values, chemical reactions, consequences of consumption, conservation, electric vehicles, electricity, electric generation, energy, environment, geology, land use, landfill, methane, recreation, rubbish, sustainability, technological innovation, waste, water quality.

The New Zealand Curriculum - NZC

Key Competencies

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

Key competencies	**Examples of rela**
Thinking	Constructing ques
Using language, symbols and texts	Interpreting and m in the Background
Managing self	Numerous content engage with the m content.
Relating to others	Videos connect stu actively when see
Participating and contributing	LEARNZ Virtual Fie inquiry. They also context of their ow

	action.

(See page 12-13 NZC 2007)

Values

The *Waste not Wasted* 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 *Waste not Wasted* 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**
Economic World **Place and Environment** **Continuity and Change**	**Level 1:** *Understand that people have diff roles and responsibilities as part of their participation in groups.* **Level 2:** *Understand how people make ch to meet their needs and wants | Understar how places influence people and people influence places | Understand how time an change affect people's lives.* **Level 3:** *Understand how groups make an implement rules (and laws) | Understand h*

people view and use places differently | Understand how people make decisions ab access to and use of resources.

Level 4: *Understand how producers and consumers exercise their rights and meet responsibilities | Understand how explorati and innovation create opportunities and challenges for people, places, and environments | Understand that events ha causes and effects | Understand how forma and informal groups make decisions that impact on communities.*

Science

Strand	Achievement Aims
Physical World 	**Physical inquiry and physics concepts** • **Levels 1-2:** *Explore everyday exa of physical phenomena (electricity)*
Material World 	**Chemistry and society** • **Levels 3-4:** *Relate the observed characteristic chemical and physica properties of a range of different materials to technological uses and natural processes (landfill liner, decomposition, methane).*
Living World	**Ecology** • **Levels 2:** *Recognise that living thi are suited to their particular habita*

- **Level 3-4:** *Explain how living thing suited to their particular habitat an how they respond to environmenta changes, both natural and human-induced*.

Planet Earth and Beyond

Interacting Systems

- **Levels 1-2:** *Describe how natural features are changed and resource affected by natural events and hun actions.*

Technology

Strand	Achievement Aims	Background Pages
Nature of Technology 	**Characteristics of technologicaly** • **Level 2:** Understand that technology both reflects and changes society and the environment and increases people's capability. • **Level 3:** Understand how society and environments impact on and are influenced by technology in historical and	• Innovation at Kate Valley [3] (state-of-the-art liner, extensive environmental monitoring and testing, modern machinery, trucks with real-time cameras and GPS, methane capture for electricity generation) • Who Works at a Landfill and What Do They Do? [8] (technology in people's work) • Organic Waste and Landfill Gas [4]

	contemporary contexts and that technological knowledge is validated by successful function. • **Level 4:** Understand how technological development expands human possibilities and how technology draws on knowledge from a wide range of disciplines.	(methane capture for electricity generation and reducing environmental harm)
	Characteristics of technological outcomes • **Level 2:** Understand that technological outcomes are developed through technological practice and have related physical and functional nature. • **Level 3:** Understand that technological outcomes are recognisable as fit for purpose by the relationship between their physical and functional natures. • **Level 4:** Understand that technological outcomes can be interpreted in terms of how they might be used and	

	by whom and that each has a proper function as well as possible alternative functions.	
Technological Knowledge 	**Technological systems** • **Level 2:** Understand that there are relationships between the inputs, controlled transformations, and outputs occurring within technological systems. • **Level 3:** Understand that technological systems are represented by symbolic language tools and understand the role played by the “black box” in technological systems. • **Level 4:** Understand how technological systems employ control to allow for the transformation of inputs to outputs. **Technological products** • **Level 2:** Understand that there is a relationship between a material used and its	• Innovation at Kate Valley [3] (state-of-the-art liner, extensive environmental monitoring and testing, modern machinery, trucks with real-time cameras and GPS, methane capture for electricity generation) • Organic Waste and Landfill Gas [4] (methane capture for electricity generation and reducing environmental harm)

	performance properties in a technological product. • **Level 3:** Understand the relationship between the materials used and their performance properties in technological products. • **Level 4:** Understand that materials can be formed, manipulated, and/or transformed to enhance the fitness for purpose of a technological product.

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
Speaking, Writing and Presenting 	1. Uses an increasing understanding connections between oral, written, visual language when creating text 2. Creates a range of texts by integra sources of information and process strategies with increasing confiden
Listening, Reading and Viewing	1. Selects and reads for enjoyment ar personal fulfilment. 2. Recognises connections between o written, and visual language. 3. Integrates sources of information a prior knowledge confidently to mak sense of increasingly varied and complex texts.

4. Thinks critically about texts with increasing understanding and confidence.

Source URL: https://www.learnz.org.nz/katevalley194/curriculum

Links
[1] https://www.learnz.org.nz/katevalley194/curriculum
[2] http://www.learnz.org.nz/katevalley194/bg-standard
[3] http://www.learnz.org.nz/katevalley194/bg-standard-f/innovation-at-kate-valley
[4] http://www.learnz.org.nz/katevalley194/bg-standard-f/organic-waste-and-landfill-gases
[5] http://www.learnz.org.nz/katevalley194/bg-standard-f/kate-valley-biodiversity-project
[6] http://www.learnz.org.nz/katevalley194/bg-standard-f/the-environment-and-modern-landfills
[7] http://www.learnz.org.nz/katevalley194/bg-standard-f/why-do-landfills-exist%3F
[8] http://www.learnz.org.nz/katevalley194/bg-standard-f/who-works-at-a-landfill-and-what-do-they-do%3F