# Waka Kotahi rail safety resource

Primary and intermediate – Level 1 to Level 4

Revised 2023

What is worth knowing and doing as a citizen around places on the electrified rail network?

* When you are a citizen you belong, you matter and you make a difference.
* Citizens work together to create safe journeys for everyone around the electrified rail network.

**Stay away from overhead wires carrying electrical energy.**

* The electrical energy that moves trains is always dangerous and always on.
* You cannot hear, see or smell electrical energy.
* The electrical energy is 100 times more powerful than the electrical energy used at home.
* The electrical energy can jump gaps of up to 3 metres.
* When electrical energy passes through people, it kills or seriously injures them.

**Always use level crossings to get across the tracks.**

* Trains on the tracks are very big, very fast and very quiet.
* Trains take a long time to stop.
* It is dangerous to take shortcuts and trespass.

**Watch out for the second train.**

* Obey all warning signs and signals.
* Wait until all warning signs have stopped before crossing – there may be a second train.
* Look and listen in both directions.

This resource is published by Waka Kotahi NZ Transport Agency on our Education Portal.

Learning area resources cover:

* English
* Mathematics and Statistics
* Science
* Social Sciences.

It contextualises learning around a theme of safety around the rail network, with special reference to Auckland’s electrified rail network for commuter trains.

**Key Competency self-assessment rubric**

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| **Thinking** | **Managing self** | **Participating and contributing** | **Relating to others** | **Using language, symbols and text** |
| Critically analyse the factors contributing to safe electrified rail networks for all citizens.Example – describe, explain and justify ways to stay safe at places on the electrified rail network. | Act responsibly when around the electrified rail network as a pedestrian, passenger, cyclist or driver to ensure all citizens keep safe.Example – adopt a “sort it and report it” approach to unsafe behaviour around the electrified rail network. | Display an awareness of the local issues around creating and maintaining safe electrified rail networks.Be actively involved in community issues around safe electrified rail networks.Example – listen, respond and act together to make the electrified rail network a system free of death and serious injury. | Interact with others to create safe electrified rail networks.Example – demonstrate a commitment to safer outcomes for self, friends, family and whānau at places on the electrified rail network. | Interpret and use language, symbols and text in ways that keep citizens safe around electrified rail networks.Example – share safe rules and behaviours for places on the electrified rail network. |

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| **English** | **Mathematics and Statistics** | **Social Sciences** | **Science** |
| How can I write an **opinion (or argument)** to make a difference to the safety of citizens using the rail network? | What **measurements, shapes, positions or orientations** will help keep citizens safe on the electrified rail network?  | How can we take action to keep citizens safe when they interact with **places** on the electrified rail network? | What action would best keep citizens safe around the **electrical energy** used to movetrains on the electrified rail network? |
| Opinion and argument writing. | Measurement, shape, position and orientation. | Place – How people perceive, represent, interpret and interact with places. | Energy exists in many forms. Energy can be transformed when things change or are made to happen. |
| **NZC: English**: Creating Meaning: Transactional Language – Opinion/Argument. | **NZC: Mathematics and Statistics:** Geometry and Measurement: Measurement, shape, position and orientation. | **NZC: Social Sciences: Social Studies:** Place and Environment.  | **NZC: Science:** Physical World: Physical Inquiry and Physical Concepts: Energy: Electrical Energy. |
| 1. **Describe** the actions citizens need to take to keep everyone safe around the rail network. (Express an opinion.) [multistructural] | 1. **Describe** a [**measurement, shape, position and/or orientation**] relevant to staying safe on the electrified rail network. [multistructural] | 1. **Describe** a **place** on the electrified rail network. [multistructural] | 1. **Describe** how electrical energy is transferred in the electrified rail network in ways that keep citizens safe. [multistructural] |
| 2. **Explain** **why** citizens need to take these actions to keep everyone safe around the electrified rail network. (Back up the opinion with reasons and evidence.) [relational] | 2. **Explain why** this [measurement, shape, position and/or orientation] helps citizens stay safe on the electrified rail network. [relational] | 2. **Explain why** this place on the electrified rail network is useful to citizens. [relational] | 2. **Explain why** transferring electrical energy in these ways will keep citizens safe around the electrified rail network. [relational] |
| 3. **Create** a written text to communicate an opinion/argument about keeping citizens safe around the electrified rail network. [extended abstract] | 3. **Take action** to help citizens use [measurement, shape, position and or orientation] to keep safe on the electrified rail network. [extended abstract] | 3. **Take action** to help keep citizens in your community safe around places on the electrified rail network. [extended abstract] | 3. **Take action to share this information** to help keep citizens safe around the electrified rail network. [extended abstract] |