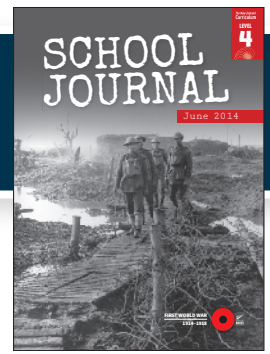


# Underground Soldiers

by Mark Derby

School Journal  
Level 4, June 2014  
Year 7



## Overview

In a straightforward report (supported with period photographs, a map, and a detailed diagram), this article shows the huge risks that were taken by New Zealand tunnellers during the First World War. The job of the tunnellers was to attack German positions from underground and so reduce the risks to Allied soldiers in no-man's land. The tunnels also provided areas where wounded soldiers could be treated. "Underground Soldiers" should be read in conjunction with other stories and articles about the war and New Zealand's involvement.

It provides many opportunities for making connections between texts, supporting the integration and evaluation of information. The subject matter is fascinating but grim, and be aware that students, especially those who have had recent experiences of war, may find the text distressing. To learn more about the First World War, go to: [www.nzhistory.net.nz/war/first-world-war](http://www.nzhistory.net.nz/war/first-world-war)

Texts related by theme

"Sky-High" SJ L4 June 2014 | "War in Waihi" SJ L4 Oct 2013 | "In the End" SJ L4 Oct 2013

## Text characteristics from the year 7 reading standard

academic and content-specific vocabulary

non-continuous text structures and mixed text types

illustrations, photographs, text boxes, diagrams, maps, charts, and graphs containing main ideas that relate to the text's content

**THE WAR UNDERGROUND**

Around Arras, the ground was mostly sandstone, which was soft and easy to dig through. Using picks and shovels, the miners dug their tunnels 30 metres below the surface. Soldiers had to haul the loose rock up to the surface in sandbags and scatter it carefully, well away from the tunnel entrance. Otherwise an enemy plane might spot the distinctive white rock on the brown soil, and the enemy artillery would aim its shells straight at the tunnel entrance.

Tunnelling on the Western Front was dangerous and frightening. Often it was a race against time. Men on both sides worked quickly to dig their tunnels and explode their bombs before the enemy beat them to it. This was called counter mining. Once a tunnel was directly beneath the enemy, tunnellers packed it with tonnes of explosive. Then they stacked sandbags behind this explosive to concentrate the blast, then detonated it from a safe distance. Sometimes enemy soldiers were blown into the air, and their trenches were turned into deep craters. Enemy miners working underground could also be killed in these explosions.

Carbon monoxide was another killer that could be released underground at any time. Because this poisonous gas is invisible and has no smell, miners on both sides carried canaries and white mice in cages. These creatures were quickly affected by carbon monoxide and acted as an early warning sign of the gas.

**AN UNDERGROUND CITY**

One day, some off-duty New Zealand officers found ancient quarries beneath Arras where sandstone had been mined to build the town. Some of these quarries were huge, cathedral-sized caverns. The British quickly realised that these caverns could be connected and extended towards the enemy trenches to move an entire army safely underground. Thousands of troops could be sheltered and hidden before launching a surprise attack on the Germans.

Over the next five months, the New Zealand tunnellers worked in secret alongside the British. For a short time, the company was reinforced with forty-three soldiers from the Pioneer Battalion. The men worked around the clock in eight-hour shifts to create a complex system of caverns and tunnels able to hold 25 000 troops. The tunnels had to be wide enough for soldiers to march through while wounded men were carried on stretchers in the other direction.

The secret labyrinth also needed facilities, such as toilets, cookhouses, chapels, and a large hospital. Running water and electric lighting were installed and a horse-drawn railway moved supplies. To help with navigation, the tunnellers named caves after their home towns. Signs such as Auckland, Wellington, Nelson, Christchurch, and Dunedin were painted on the walls. Some soldiers also scratched messages and drawings in the rock.

**Geophones: Keeping Track**

The tunnellers kept constant track of the enemy. They did this through a piece of equipment called a geophone – a pair of disc-shaped microphones connected to earpieces. By moving one disc around until the sound was equally loud in both ears, a miner could tell where a noise was coming from and how far away it was.

Geophones were helpful, but they also caused stress. Using one meant sitting in a dark tunnel for hours, straining to hear the faint tap of the enemy's picks – and being able to distinguish this sound from many others. Through the geophone, it was sometimes possible for a miner to hear the enemy packing their explosives. When that noise stopped, it meant the inevitable explosion could happen at any time.

Many soldiers' lives depended on the skilful use of a geophone.

adverbial clauses or connectives that require students to make links across the whole text

complex layers of meaning, and/or information that is irrelevant to the identified purpose of reading (that is, competing information), requiring students to infer meanings or make judgments



Reading standard: by the end of year 7

# Possible curriculum contexts

## SOCIAL SCIENCES (Social Studies)

Level 4: Understand how people participate individually and collectively in response to community challenges.

## ENGLISH (Reading)

Level 4 – Structure: Show an increasing understanding of text structures.

## ENGLISH (Writing)

Level 4 – Structure: Organise texts, using a range of appropriate structures.

## Possible reading purposes

- To learn how New Zealand tunnellers contributed to the First World War
- To learn about one aspect of how the war was fought
- To read a story about human ingenuity in times of war
- To identify some of the features and structure of historical non-fiction.

See [Instructional focus – Reading](#) for illustrations of some of these reading purposes.

## Possible writing purposes

- To write a personal response to the article
- To write a historical account of another event in the First World War involving New Zealand soldiers
- To ask questions about information in the article and research the answers.

See [Instructional focus – Writing](#) for illustrations of some of these writing purposes.



The New Zealand Curriculum

# Text and language challenges

## VOCABULARY:

- Possible unfamiliar words and phrases, including “caverns”, “bushmen”, “trade unions”, “reinforcements”, “evacuated”, “shells”, “Labyrinth”, “picks”, “shovels”, “sandbags”, “distinctive”, “carbon monoxide”, “quarries”, “cathedral”, “Running water”, “navigation”, “geophones”, “distinguish”, “inevitable”, “stalemate”, “stretcher-bearers”, “dugouts”
- Colloquial expressions, such as “didn’t take kindly to”
- Words and terms related to the war, including “Western Front”, “no-man’s land”, “trench”, “Allies”, “artillery”
- The place names.

## Possible supporting strategies

Identify words and expressions that may be unfamiliar to your students, especially those related to tunnelling and trenches, and the war-related terms.

See ESOL Online – Vocabulary for suggestions on how to support students with unfamiliar vocabulary. Integrate vocabulary activities with those for exploring the topic and building prior knowledge.

Support students with the key vocabulary, but for English language learners, it may not be useful to spend time on the very specialised language – the frequent topic words and academic language may be a better focus. For the very low-frequency vocabulary, you could supply an extended glossary with simple definitions.

Remind students to use the glossary at the back of the Journal.

Point out how some unfamiliar terms are explained in the text (for example “the Western Front”, “geophones”), and some can be worked out from the context (“stretcher-bearers”).

*The English Language Learning Progressions: Introduction*, pages 39–46, has useful information about learning vocabulary

## SPECIFIC KNOWLEDGE REQUIRED:

- Knowledge of New Zealand’s involvement in the First World War
- Knowledge of the experiences of New Zealand soldiers in the First World War
- Knowledge of the time and the places
- Knowledge of mining and tunnelling
- Ability to evaluate a text, integrate and infer information, and think critically about information and themes.

## Possible supporting strategies

Build knowledge of the First World War through texts that look at New Zealand’s involvement. This text should be read in conjunction with the related stories and articles in this and other School Journals. Use the map on pages 2–3 to discuss the extent of the British Empire in 1914 and the main areas in which the war was being fought.

The stories and article in SJ L4, Oct 2013, and SJSL L3, 2014, about the Waihi gold miners strike will give students support to understand the work the men did and the trade union connection.

The text makes explicit mention of killing enemy soldiers and of Allied soldiers being “shot at or shelled”. This may be distressing for some students.

## TEXT FEATURES AND STRUCTURE:

- Report with headings
- Organisation of content under six headings
- Captioned photos, which illustrate the text
- The use of a cut-away labelled diagram and explanation in a text box
- The text box that explains the use of geophones
- The map
- Many complex sentences with multiple clauses and relationships between ideas (for example, “To limit the risk to their men, both sides began to dig tunnels that led under no-man’s land.”)
- Bolded words that are explained in the glossary.

## Possible supporting strategies

Several readings may be necessary to deal with the complexities of the content and structure.

Skim the article with the students to help them to get a sense of its structure and purpose. Prompt them to use the headings and to examine the photographs.

Some students may need support to understand how to “read” the cut-away diagram on page 33.

If necessary, help the students to understand long complex sentences by breaking them into separate clauses and identifying the main ideas of each clause. Using Who? What? Where? When? How? and Why? as prompts and breaking down the information together can help students to identify the main ideas. Pay attention to relationships between ideas. Many of the ideas are related through time and sequence. Support students to identify the signals of time and what they mean. You could create a chart of language that signals time and sequence and add to it during and after reading. You could also refer to this chart during writing.

For information about supporting the use of language for recounting and explaining, see *Supporting English Language Learning in Primary Schools: A Guide for Teachers of Years 7 and 8*, pages 20–29 and 50–69. The DVD *Making Language and Learning Work 3: Integrating Language and Learning in Years 5 to 8* shows how the teacher incorporates support for language within a mainstream classroom lesson. For more information, see ESOL Online – Making language and learning work DVDs.



Sounds and Words

# Instructional focus – Reading

**Social Sciences** (Social Studies, level 4: Understand how people participate individually and collectively in response to community challenges.)

**English** (Level 4 – Structure: Show an increasing understanding of text structures.)

## Text excerpts from “Underground Soldiers”

## Students (what they might do)

## Teacher (possible deliberate acts of teaching)

### The Miners from NZ

The men who volunteered for the New Zealand Tunnelling Company were mostly miners from Waihi or Reefton – or they were bushmen and labourers. They were rough, tough men, used to working in dangerous situations and looking out for their mates. Many belonged to trade unions and didn't take kindly to authority, but they soon learned to march, salute, and take orders.

The students **make connections** between the text and their prior knowledge. They use vocabulary knowledge to work out “bushmen” and “labourers” and **integrate** information to **infer** that the men would be suitable tunnellers because they were used to hard, dirty work. They **integrate** this information to **infer** that the men's backgrounds and pre-war experiences meant that they were used to working without supervision. They **ask questions** as they make links between belonging to a trade union, the men's work, and their attitude to authority.

**ASK QUESTIONS** to help the students draw on their prior knowledge and make connections.

- What do you know about mining (from reading “War in Waihi”) that can help you understand why miners volunteered for tunnelling?
- What connections can you make between the Waihi miners' strike of 1912 and this text?
- Why do you think being in a trade union meant they “didn't take kindly to authority”? Use what you have learnt about trade unions to figure this out.

**DIRECT** the students to work with a partner to discuss the last sentence.

- Examine the photograph of these men.
- Given their attitudes to authority, why do you think the men volunteered and put up with the strict military training? What helped you to infer that?
- Share your responses with the group.

**DIRECT** the students to work in pairs or small groups.

- Examine the diagram carefully to make sure you understand what it shows.
- Now reread the extract, linking the text to the features shown in the diagram.
- What differences will the tunnels make?
- What questions do you have about this kind of warfare, both above and below the ground? Share your questions and any answers or hypotheses.

**PROMPT** the students to share their thinking.

- What is your response to the experiences of the soldiers and tunnellers?
- Looking back from 100 years on, what do you think about the way this part of the war was fought?

**PROMPT** the students to ask questions and make inferences.

- Check the map – how significant was an 11 kilometre advance?
- What does “stalemate” mean? What can you infer from the rest of that sentence?
- What can you infer about this action?

**MODEL** unpacking a sentence to infer and evaluate.

- I notice the third sentence used conditional words like “Given ...” and “considered”. They made me think it wasn't such a great victory.
- The position of this sentence supports my inference. The previous sentence says they gained territory, and the sentence after it says the Germans fought back. The rest of the paragraph lets me know that huge numbers of soldiers were killed when the Germans fought back.
- Reading the extract like this helped me to infer and integrate information and evaluate the overall success of the battle.

**DIRECT** the students to turn to their partners.

- What is your response to the tunnelling activities on both sides?
- Share the ways you used reading strategies to integrate and evaluate information here.

**GIVE FEEDBACK**

- I heard from your discussions that many of you drew on information from more than one source to understand the complexities and the risks of the work. Remember to refer back to other articles and stories when you read another First World War article.
- I noticed you often went back to the map and the diagrams to check information in the body text with information in the visual features. That's an important way to integrate information.

The Allies tried to capture the German trenches by sending thousands of soldiers across no-man's land on foot. Huge numbers died after being shot at or shelled. To limit the risk to their men, both sides began to dig tunnels that led under no-man's land. There they used explosives in the hope of killing soldiers in the enemy trenches overhead. This was known as tunnel warfare – the war underground.

The students **cross-check** information in the text with the diagram to **locate** the positions of the soldiers and the tunnels. They **integrate** information from this and other texts to understand the great risks and the high casualties. They **ask questions** and **form hypotheses** about the loss of life in trench warfare and about the benefits and disadvantages of underground warfare.

The students **infer** from the diagram and words, that although tunnelling was risky, the intention was to reduce the loss of life.

As planned, the Germans were caught by surprise. That day, the Allies advanced 11 kilometres into German-held territory. Given the stalemate, that was considered a victory. However, the German troops soon fought back. Lines of stretcher-bearers carried wounded British and Canadian men back down the exit tunnels into the underground hospital. There, doctors and nurses struggled to save their lives. Nearly 40 000 Allied troops were killed in the Battle of Arras. But without the underground cave system, many more might have died.

The students **ask and answer questions** to **evaluate** the success of the operation. They **cross-check** with the map on page 29. They **unpack** the third sentence and the words “Given” and “considered” to **infer** that it was not a great victory. They use the words “fought back” in the next sentence to confirm their inference and **ask questions** about the gains and losses. They **ask questions** about the Battle of Arras and how it influenced the outcome of the war, and they **synthesise** information to **evaluate** the action. The students **make connections** between the use of the exit tunnels and information earlier in the text about the building and planning to **infer** that the underground system was necessary and helped save lives.

### METACOGNITION

- Explain to your partner what you had already learnt about the First World War and how this helped you as you read this text.
- Talk to your partner about your personal responses to the article. How do your own opinions affect your understanding of a text like this one?

 Reading standard: by the end of year 7

 The Literacy Learning Progressions

 Assessment Resource Banks

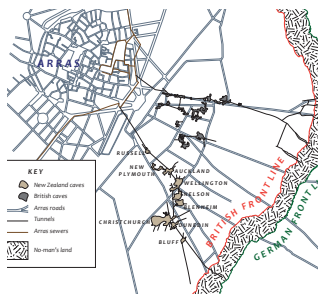
# Instructional focus – Writing

**Social Sciences** (Social Studies, level 4: Understand how people participate individually and collectively in response to community challenges.)

**English** (Level 4 – Structure: Organise texts, using a range of appropriate structures.)

## Text excerpts from “Underground Soldiers”

The boys had accidentally rediscovered a huge, secret hiding place for soldiers, carved out almost a hundred years ago during the First World War. Thousands of men once rested and slept in these stone caverns. The soldiers came from Britain and Canada to fight the Germans – but the underground network was mostly built by miners from New Zealand.



The First World War began in August 1914, when the German army invaded Belgium and then swept into France. The Allies stopped the German advance, and both sides dug a long line of trenches that faced one another. This was the Western Front. The space between the two sets of trenches was called no-man's land.

Today, Arras has a special visitors' centre, with a lift that goes down to an underground museum in the “Wellington” cave. The town also has a memorial to the more than fifty New Zealand tunnellers who died during the war.

## Examples of text characteristics

### OVERVIEW

*An overview at the start of an article helps readers to locate the time and place. It also provides context for the article.*

### LABELLED DIAGRAM

*Labelled diagrams visually represent information to help readers understand. They can show relationships between people and places. A cutaway diagram imagines looking at a slice through something. Labels need to be clear and succinct.*

### EXPLANATION

*An explanation tells how or why something happened. It can also position an event in time (“when”, “and then”) and explain the use of specific words and terms (“this was”, “was called”).*

### ENDINGS

*Endings can take different forms, for different purposes, such as:*

- summarising
- drawing a conclusion
- bringing readers up to the present day (in an historical text)
- giving readers something to think about
- linking back to the opening for a sense of completion.

### METACOGNITION

- What big ideas did you want your readers to understand? How has the structure helped make the content clear for them?
- How did you use feedback? Tell me about a place where feedback helped and a place where you chose not to use the feedback. Why was that?
- Do you think you've achieved your purpose? Tell me about it.

## Teacher (possible deliberate acts of teaching)

**PROMPT** the students to consider their writing intentions.

- The structure you choose will depend on your purpose and audience, so make sure you're clear about those first.
- How will the structure meet your purpose? How will it suit the needs and interests of your audience?

**EXPLAIN** the purpose of an overview.

- If your topic is complex, your readers may need some help to understand the scope of the text. A brief overview can show where and when events took place and give the broader context, and it can hint at what will be covered.
- Think about your topic and what readers might need to know at the start. Sometimes, it's easier to write an introduction or overview when you've finished the main writing. This can help you stand back and consider what (if anything) readers will need.
- Ask a partner to review your writing if you're not sure about adding an overview.

**ASK QUESTIONS** about using visual features.

- Would a diagram or illustration help make your text easier for your audience? Why or why not?
- What aspect of your topic needs a diagram? Why?
- What kinds of diagrams have you considered? What will it need to show?
- Is it important that the diagram is accurate (for example, drawn to scale)? Why or why not?
- Which parts need labels?

This text uses a lot of language to signal time and sequence. If appropriate, you could use this as a feature for the students to focus on. Identify examples in the text and add them to a chart. Support the students to use time and sequencing language by providing:

- explicit explanations of the meanings and structures of the examples
- models of how to use the language in other sentences
- opportunities to co-construct sentences using the language
- opportunities to complete cloze sentences by selecting the correct time signals
- opportunities to use time and sequence language in their writing
- feedback on their use of the language.

**TELL** the students to ask a partner for feedback.

- When you're giving feedback, consider whether a diagram or explanation is necessary. If one has been used, does it suit the writer's purpose? Will readers find it helpful?
- Check the words used in a label or an explanation: how do they help clarify what's happening?
- When you are receiving feedback, distinguish between a preference and a need to make changes. It's your writing, but good feedback can be very helpful. Ask for another person's opinion if you're unsure.

**ASK QUESTIONS**

- As you plan and write, what consideration are you giving to your ending?
- What thoughts do you want to leave your readers with?
- What models from literature can you use for your writing?

**GIVE FEEDBACK**

- The introduction gives a short summary of the topic. Now I know what to expect and I can draw on my prior knowledge as I read.
- You decided not to use a diagram in the end because it would be too complex for your audience. That shows good judgment.
- Your diagram made the explanation much clearer. I didn't understand where the soldiers were in relation to the bridge, and now I do.



Writing standard: by the end of year 7



The Literacy Learning Progressions