

VIRTUAL TRIPS TAKE STUDENTS UNDERGROUND



education.nzta.govt.nz

School students saw inside the construction of Auckland's major new motorway tunnels. More trips are planned to the Waterview Connection tunnels and to Wellington's Memorial Park. All virtual field trip resources are online for school use.

Teacher Shelley Hersey kitted herself up in safety gear including a hard hat, steel-capped boots and emergency rebreather, then entered the first massive Waterview road tunnel in Auckland.

She journeyed down into the earth, through the curved concrete tunnel, along an elevated gantry and then, among deafening whirrs and thuds, she turned to the camera.

'You've come a massive 1.9km into the tunnel underground here to finally meet Alice the Tunnel Boring Machine,' she told school students taking part in this virtual field trip from their classrooms.

Besides seeing the giant machine, Shelley met engineers and other experts running the project. Students called in via audioconference with their own questions.

'Not many people other than those that work on the tunnel have seen Alice in action so it was a privilege to be able to share this experience with schools,' says Shelley afterwards.

The field trip team will make three more visits to Waterview in coming years. Resources remain online for teacher use, including videos, photos, recorded audioconferences, background information and starter activities.

'This project has sparked a lot of interest and fits in well with issues that many schools look at during inquiry learning,' says Shelley.

'By learning about the Waterview Connection project, students are able to consider the economic and social value of our roading network, as well as look at issues of city planning, sustainability and use of technology to solve problems.'



Watch the videos and read more:
education.nzta.govt.nz/field-trips

Students enjoy experience

During a live audioconference, Marist College students asked project engineers about the challenges of the Waterview project, safety procedures and potential effects on the local community, to which many of the class belong.

Teacher Sanet Bircham says students enjoyed learning more about the tunnels being built so close to their routes to school.

'Due to the project being relevant to their environment, they enjoyed learning about the "ins and outs" of the project and what goes on behind the scenes.'

Waterview was the first virtual field trip for a year 4-6 class at Saint Therese School. Students here are learning in line with the concept of digital citizenship. Teacher Jackie McGivern says the class sent a mascot along for the trip.

'Seeing photos of Rosebud at the tunnel site and watching her in the video segments helped to hold their attention when coming to grips with complex ideas and material. Reading her diary entries each day was very exciting and was written to be readily accessible for students. Taking part in the audioconference was also a new experience for us and gave us a sense of purpose in our learning.'



Rosebud

NOVEMBER DATE FOR NEXT MEMORIAL PARK FIELD TRIP



Andrew Penny (on the right of the photo) interviews Memorial Park site engineer Russell Scoones.

Teachers can sign up their class for the trip starting in Term 4, November 11-13. Experience construction of the National War Memorial Park.

This will be the third of four Memorial Park virtual field trips, run by the LEARNZ team. Students will see the finished state highway tunnel beneath the park, located in central Wellington. They will also see the early stages of constructing the park above. The project will be ready for Anzac Day 2015, the centenary of the Gallipoli landings.

Field trip teacher Andrew Penny says the project presents a fascinating insight into the design, engineering and construction of a complicated site - essentially a tunnel with a park on top.

'The biggest concept for me has been the realisation of just how much I take our roading infrastructure for granted. The sheer volume of planning, not to mention people required to action this project, blew my mind.'

'The field trips so far have been used by classes in a number of ways, such as inquiring into the significance of New Zealand's involvement in war, the actual design and construction process, the variety of career opportunities available in the construction industry, or even as a catalyst for investigating a roading project near their own town.'

 Sign up or read more: education.nzta.govt.nz/field-trips

WHAT TEACHERS SAID ABOUT THE LAST TRIP

The audioconference was a new concept for my class and they enjoyed coming up with questions and then asking them live! They learnt a lot about World War 1 and also the importance of remembrance.

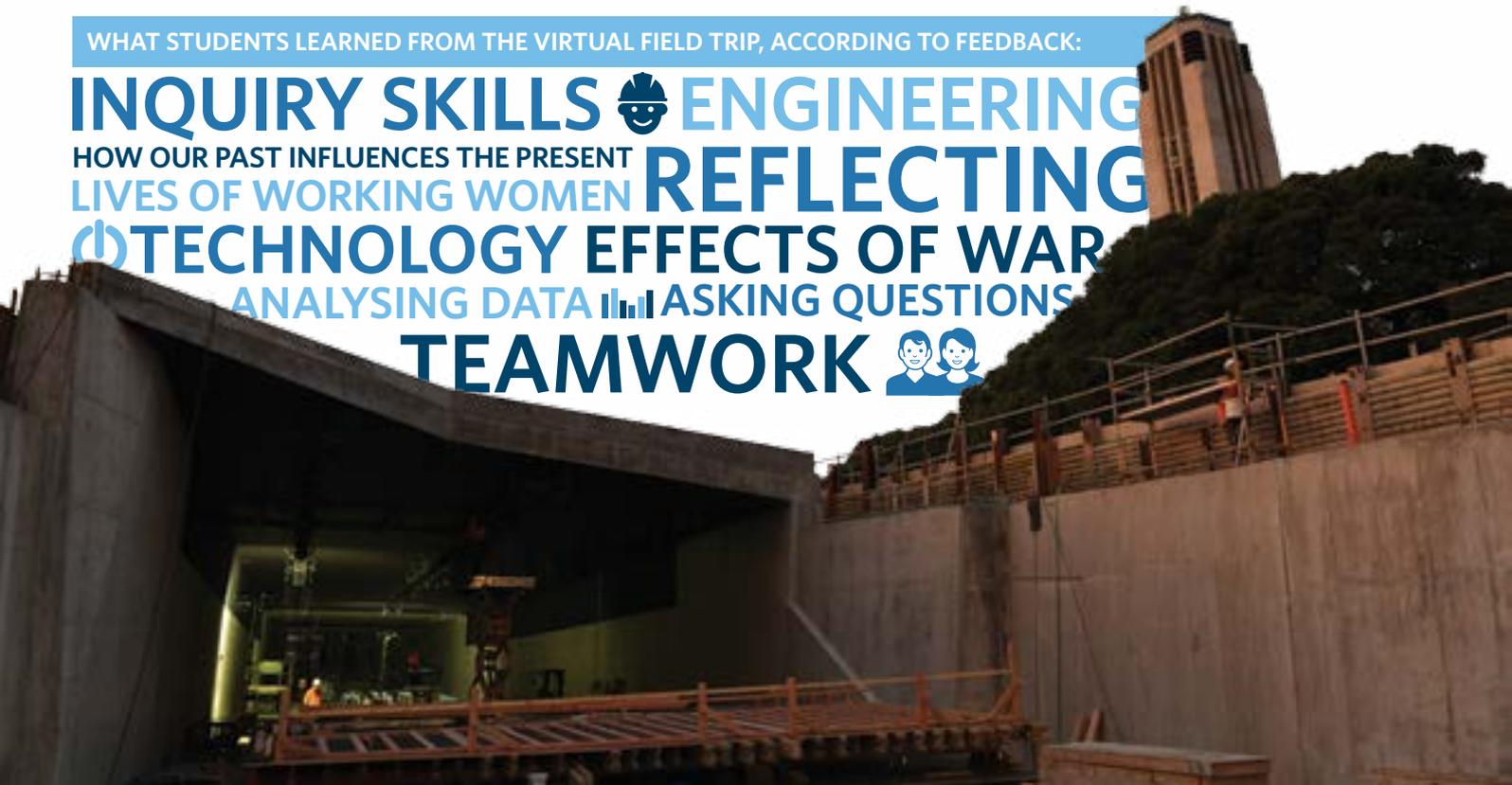
*Neil McDonald, St Claudine
Thevenet School*

It is great to have the real world contexts for children to engage in.

*Ryan Burson
Clearview Primary School*

WHAT STUDENTS LEARNED FROM THE VIRTUAL FIELD TRIP, ACCORDING TO FEEDBACK:

INQUIRY SKILLS  **ENGINEERING**
HOW OUR PAST INFLUENCES THE PRESENT
LIVES OF WORKING WOMEN **REFLECTING**
TECHNOLOGY **EFFECTS OF WAR**
ANALYSING DATA  **ASKING QUESTIONS**
TEAMWORK 





Starters for your students

Young people belong, they matter and they make a difference. Students have agency – they can identify challenges (problems and opportunities) in large projects in their community and work with others to help manage these challenges. Here are some suggestions to fire up their critical and creative thinking.

When I am thinking like a citizen about road projects...

- › I examine why the project is going ahead
- › I understand the decision-making process
- › I investigate the social, economic and environmental costs and benefits
- › I consider a range of values and perspectives about the project
- › I compare and contrast with alternatives
- › I ask whether it makes a difference for local communities and society at large
- › I ask how this is significant for me and others
- › I consider how I can take action to support or challenge projects.

STUDENTS, CITIZENS AND ROAD USERS

CITIZENSHIP EDUCATION COULD BE THE BIG IDEA FOR TEACHERS USING WATERVIEW AND MEMORIAL PARK VIRTUAL FIELD TRIPS TO DEEPEN AND EXTEND STUDENT LEARNING.

Andrea Milligan, lecturer at Victoria University of Wellington's Faculty of Education says citizenship education takes students beyond mere knowledge of society's formal institutions and processes.

'The focus of citizenship education is on how young people actually interact with and shape their communities – and how their existing participation in society can be strengthened.'

Andrea says her own interest in citizenship education sprang from years of teaching quite content-heavy social studies programmes.

'I realised that there was an enormous gap between this content learning and fostering young people's sense of agency in their social worlds.'

She says effective citizenship education brings in controversial issues – the successful handling of which is essential to democratic life.

Participation in the democratic process around issues (be it transport in Auckland, or how to commemorate World War 1 and its impact on national identity) involves what Andrea describes as the necessary civic virtues of creative and critical thinking.

Andrea says citizenship education is effective when learning experiences:

- make **strong connections** to learners' lives
- focus on **issues that matter** to them
- focus on matters that are **genuinely contentious** and open-ended
- are **authentic** and real-world
- explore differences in **values and perspectives**
- **consider how change** could be brought about
- offer **opportunities** to make a difference in society.



Andrea Milligan



Waterview

Roads as public space

The Waterview tunnels and Memorial Park underpass add to our state highway network, which totals 11,000km.

Highways are public places and we can all have a say in where they are built, who they serve and how safe they are.

Our earliest highways include the coast road from Wellington to Petone, begun in 1854. Construction was helped the following year when an earthquake lifted parts of the route above the high tide line.

Auckland's Great South Road was another early highway, built with less than peaceful intentions by British soldiers. It was used to move forces south for the war against Waikato Māori.

History of roads: teara.govt.nz/en/roads

Many early roads were marked down on paper but never built. Public access remains. Read about unformed legal roads at the Walking Access Commission:

walkingaccess.govt.nz/

FACTS AND FIGURES BEHIND THE PROJECTS FEATURED IN VIRTUAL FIELD TRIPS

The people behind the Waterview Connection project made this incredible poster filled with facts about Alice the Tunnel Boring Machine.

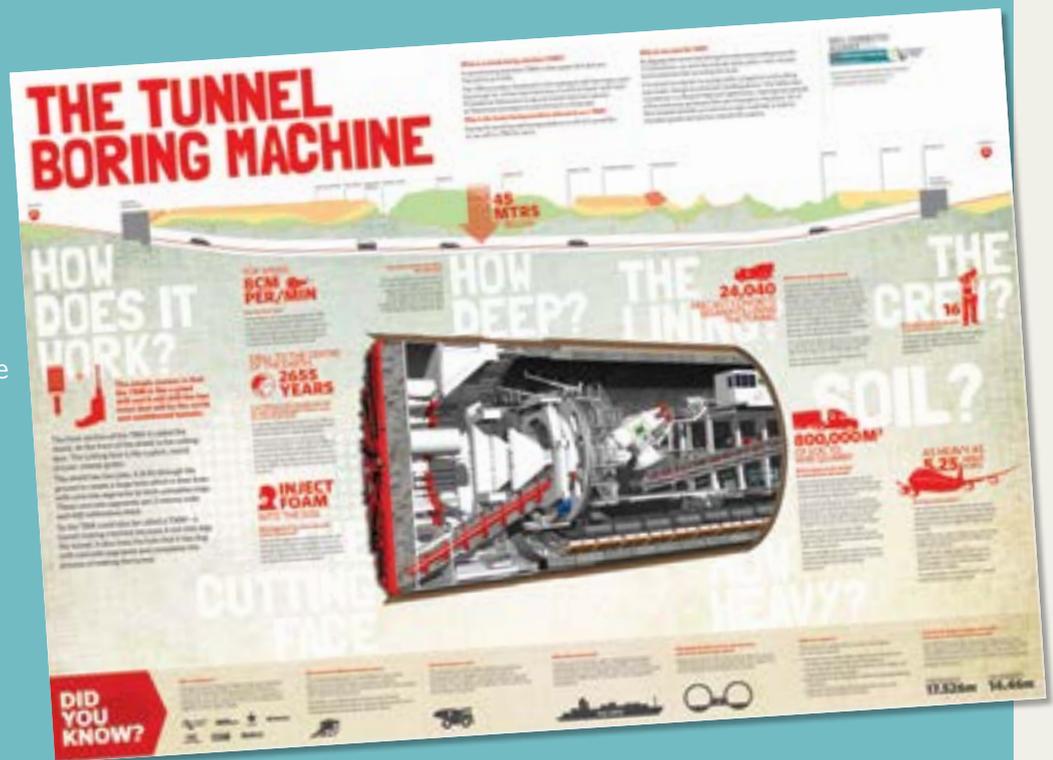
For example, the machine is more than five times heavier than an Airbus A380, the largest passenger plane in service. Its top speed, however, is comparable to a snail – 8cm a minute. An estimated 800,000 cubic metres of soil and rock will be removed. Much of this will fill in the hole at the old Wiri Quarry to create new land for Auckland's growth.

Teachers can download a PDF version of the poster.

Search for 'Alice poster' at

 education.nzta.govt.nz

 facebook.com/AliceTBM



Memorial Park past and future

The National War Memorial was dedicated on Anzac Day 1932 to commemorate World War 1. A crowd of 50,000 gathered to listen to the Carillon or bell tower for the first time. World War 1 had an unprecedented effect on the country. About 100,000 New Zealanders served overseas and nearly 17,000 died. The memorial also marks New Zealand's involvement in subsequent conflicts. Here is the vision behind its redevelopment.

The National War Memorial Precinct Pukeahu is the national place for New Zealanders to remember and reflect on this country's experience of war, military conflict and peacekeeping and how that experience shapes our ideals and sense of national identity.

Students can view animated artist's impressions of the park from the Ministry for Culture and Heritage:

 mch.govt.nz/national-war-memorial-park

