



# Memorial Park Video Answers

## Thursday 21 November

#### 1. Stormwater on Site

Meet Karly Sheilds, a Civil Engineer with the Memorial Park Alliance and find out about stormwater on site and what happens to it

- 1. Where does the stormwater come from?
  - Rain that does not sink into the ground
- 2. What happens to the stormwater on site?
  - It collects in catchments in the trench and is pumped to the treatment unit
- 3. Why does the water need treating?
  - Because it has a lot of sediment in it (dirty water) and it may have a high pH.

Next step learning: Why is it important to manage stormwater on site?

#### 2. Treating Stormwater

Climb up on to the Sediment treatment unit to find out how stormwater is treated

- 1. How is sediment removed?
  - It is left undisturbed in tanks so the sediment settles out
- 2. What is pH?
  - A measure of how acidic or basic something is (on a scale of 0-14) 7 is neutral
- 3. How does water on site get a high pH and how is it treated?
  - When water comes in contact with concrete it can become more basic (alkaline) and needs to be treated by bubbling carbon dioxide through it to increase the acidity.

Next step learning: Design an experiment to test for sediment in a waterway near you.

### 3. Clifton Terrace Model School and Memorial Park

Meet some students from Clifton Terrace Model School in Wellington and find out about their work on Memorial Park.

- 1. What have the students made?
  - A scale model of the Buckle Street tunnel
- 2. What is the scale they have used?
  - 1centimetre of the model equals 1 metre on the ground
- 3. Why do these students think the new park will be a good thing?
  - It will provide a nice environment for birds and people with trees and lots of space, it will give people a place to remember those who served at war

Next step learning: Make your own model of the underpass and park.





#### 4. Managing Groundwater

Talk to Michelle Knappstein about what groundwater is and how it is managed on site

- 1. What is groundwater?
  - Water under the ground that comes from rain water that has filtered through
- 2. How has the trench changed the way groundwater flows through this area?
  - The trench has created areas where water can gather and other areas where water is blocked by the trench walls
- 3. How is groundwater monitored on the site?
  - It is measured through various wells on site and water is pumped away from some areas and recharged in others.

Next step learning: What could happen if groundwater was not managed on the construction site?

## 5. Field Trip Summary

Take some time to reflect on what you have learnt during the field trip.

- 1. What has been your favourite part of the field trip and why?
  - Answers will vary
- 2. Which expert would you like to talk more with and what would you ask them?Answers will vary
- 3. Help your teacher to fill in the online <u>evaluation</u> for this field trip and go in the draw to win the evaluation prize.