Year 11 Science: Science 1.1: kauri dieback, the science and the perspectives

Name: _____ Date: _____

Try these without your notes first, then check the answer key.

Practice

1. Which of these is a science idea? (a) Kauri can live for over 2000 years. (b) PA in moved soil infects kauri roots, so trees near busy tracks are more likely to be infected.

2. Name a group with a perspective on kauri dieback in the Waitākere Ranges and outline their view in one sentence.

3. Explain why a raised boardwalk slows the spread of kauri dieback.

4. Give one example of tiakitanga in the response to kauri dieback, and say who showed it.

5. The share of Waitākere kauri infected rose from 7.9% in 2011 to 19.0% in 2016. By how many percentage points did it rise?

Fix the mistake

6. Correct this statement: "My science idea is that 19% of kauri in the Waitākere Ranges are infected."

7. Correct this statement: "Another perspective is my uncle's, who thinks the tracks should stay open."

8. Correct this statement: "Kauri dieback is a fungus that spreads through the air."

9. Correct this statement: "I mentioned tiakitanga in my conclusion, so that is covered."

Answer key (for parents and tutors)

1. Which of these is a science idea? (a) Kauri can live for over 2000 years. (b) PA in moved soil infects kauri roots, so trees near busy tracks are more likely to be infected.
   (b), because it links a cause (PA moving in soil) to an effect (more infection near tracks); (a) is a fact.
2. Name a group with a perspective on kauri dieback in the Waitākere Ranges and outline their view in one sentence.
   For example, Te Kawerau ā Maki: as mana whenua they placed a rāhui in December 2017 so the forest could recover, because the loss of kauri threatens a taonga and their people.
3. Explain why a raised boardwalk slows the spread of kauri dieback.
   PA travels in soil, and the boardwalk keeps boots off the soil above the roots, so walkers cannot pick up or drop infected soil there.
4. Give one example of tiakitanga in the response to kauri dieback, and say who showed it.
   For example, the iwi took responsibility by placing the rāhui to protect the forest for future generations; or walkers taking care by cleaning their shoes at every station.
5. The share of Waitākere kauri infected rose from 7.9% in 2011 to 19.0% in 2016. By how many percentage points did it rise?
   19.0 − 7.9 = 11.1 percentage points.
6. Correct this statement: "My science idea is that 19% of kauri in the Waitākere Ranges are infected."
   That is a fact; the science idea is the cause and effect behind it, for example that PA moves in soil and infects roots.
7. Correct this statement: "Another perspective is my uncle's, who thinks the tracks should stay open."
   A perspective must belong to a particular group, like Te Kawerau ā Maki, Auckland Council or a tramping club, with their reasons.
8. Correct this statement: "Kauri dieback is a fungus that spreads through the air."
   PA is a water mould (oomycete), not a fungus, and it spreads in moved soil, which is why cleaning boots works.
9. Correct this statement: "I mentioned tiakitanga in my conclusion, so that is covered."
   Show it in the evidence: say who takes care or responsibility, what they actually do, and how that links to the science.