

Lesson 5: Evaluate: So what?



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TE MĀRA A TĀNE



Overview:

Lesson Number:	5 of 5
Key Competencies:	Thinking; Using language, symbols , and texts; Managing self; Relating to others; Participating and contributing.
Unit/Topic:	Primary focus: Science Secondary focus: Health and Physical Education Social Sciences
Te Reo/Tikanga Māori:	Names of animals in Māori. Pre European Māori world view. (see separate lesson plan)
Values:	Excellence; Innovation, inquiry, curiosity; Diversity; Equity; Community and participation; Ecological sustainability; Integrity; Respect.
Level:	3
Science Strand:	Nature of Science Living World
Achievement Objective: Nature of Science:	<i>Students will:</i> Understanding about science: <ul style="list-style-type: none"> Identify ways in which scientists work together and provide evidence to support their ideas.
Achievement Objective: Living World:	<i>Students will:</i> Ecology: <ul style="list-style-type: none"> Explain how living things are suited to their particular habitat and how they respond to environmental changes, both natural and human-induced.
Health and Physical Education Strand:	Healthy Communities and Environments
Achievement Objective: Healthy Communities and Environments:	<i>Students will:</i> People and the environment: <ul style="list-style-type: none"> Plan and implement a programme to enhance an identified social or physical aspect of their classroom or school environment.

Social Sciences Strand: Achievement Objective:	<i>Students will:</i> <ul style="list-style-type: none"> • Understand how people make decisions about access to and use of resources.
Lesson Objective:	Students will be able to identify the unique nature of the flora and fauna in NZ. They will also be able to suggest feasible ways in which they and their community can contribute positively towards preserving and restoring our ecosystem.

Resources in Folder:

- Laminates of New Zealand fauna and introduced predator species (from Lesson One).
- Pre/post assessment test of knowledge, with marking rubric.

Resources Online:

- Background information on NZ's ambitious goal to be Predator Free by 2050: <https://predatorfreenz.org/about-us/pf-2050/>
- <https://www.trap.nz> can be used for recording your catch data.
- <https://inaturalist.nz/projects/zealandia-kaitiaki-schools-towards-a-pest-free-wellington> for an example of observations from the Wellington region.

Resources to Set Up:

- iPads or tablets with pre-installed iNaturalist application (both iOS and Android apps are available).
- Laptop to connect to projector.
- Up-to-date records and report maps from Trap.NZ.
- Vocabulary list English and Māori (see Conservation Kupu and He Manu lists in He Tikanga folder).
- 'Numbers and patterns: how do they help?' (see Supplementary Lesson Resource in the Numbers and Patterns folder).

Lesson Structure:

Introduction and overview:

Context:

For your students, school and community it is important to set the results of your investigation in the context of a longer time frame. Ideally this programme will have the most success if it is set up with the intention of maintaining it on an ongoing basis i.e. over a number of years.

Before starting this session you may want your students to undertake tracking/monitoring and trapping at home (as outlined in Lessons Two, Three and Four). This will involve students taking tracking tunnels, chew cards and traps home, and will need parental permission and good communication with home for this to be successful.

Getting your students to do this will allow you to extend the range of the data gathered and gain support from your local community.

Consider running a parent evening where students present their findings and you can gauge support (if you choose) for:

- Extending the programme into the community.
- Setting up a longer term project with community support and/or sponsorship.

For your class: Outline the statistics of the class' contribution to date in terms of:

- All observations (including general species observations).
- Tracking tunnel/chew card results.
- Number of catches etc.

Discuss how they have started the process of taking action to solve a problem.

Note: Initially any changes in endemic species numbers may be small. Getting your students to note the increase in the insect prints will help them to notice early changes due to the removal of introduced predator species.

Later classes can evaluate data around wētā and lizard prints.

Use Trap.NZ to show interactive maps of trap coverage, catches of different predator species and changes over time.

Students will be able to compare the data they collect with prior years, different seasons and other classes within their school as well as any community data collected.

Any data collected and action taken forms part of a larger picture – small changes contribute to the larger goal of making New Zealand predator free.

Theme and content:

This can be done in two sections:

- Using the second session in the Maths/Statistics unit 'Collecting and displaying data to analyse and to effect real world outcomes' (see resource folder).
- Completing the post assessment test. Students will repeat the pre-test but should now be able to articulate more in-depth conclusions, based on their new learning.

Wrap:

Have a class discussion about:

- 'Where to next?' as a school and as individuals?
- Can we make our community predator-free?
- How can we involve our parents and wider community in ongoing action to protect our unique New Zealand flora and fauna?
- What systems can we put in place to keep up our positive work? Will we continue to track and trap? How long for?
- How will we monitor whether our predator control has had a positive effect on our school environment? E.g. ongoing bird monitoring, choosing a species like fantails (a good indicator species) to monitor.
- What can we do to enhance the habitat of our New Zealand species?

As a class, choose **one** of the above aspects and formulate a plan for impacting your community with what you have learnt.

As part of your planning, make sure you set out your **SMART** goals, thinking as a teacher about how you will maintain your students' enthusiasm and motivation.

Points for Next Session:

Evaluation:

Points to Improve:

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