**Taking action for te taiao**

**Ako: Take action to monitor, detect, inform about or eradicate pests in your local area**

**Hua: I have taken action to monitor, detect, inform about or eradicate pests in my local area**

Having learned about pest management in Aotearoa, it is time to think about how you and your classmates can work together to make a difference in your local area.

Talk to the Department of Conservation, your school caretaker, local kaitiaki/restoration group or a local/regional council or science research institute. [Wilderlab](https://www.wilderlab.co.nz/) sells eDNA test kits and the [Environmental Protection Authority](https://www.epa.govt.nz/community-involvement/open-waters-aotearoa/community-groups/) provides eDNA monitoring kits to community groups.

Although the main focus of this suite of resources is on marine biosecurity, Aotearoa also battles with pests on the land and in freshwater. If you are inland, eDNA tests can be used to see what is living in streams, rivers or lakes along with eDNA from land-based species that is carried into the water.

**Collaboration and working as scientists**

Whether your project is small or big, short term or long term, it is important to collaborate with others, to share understanding and knowledge and to work on the aspects of your community/class project that you are passionate about. This type of collaboration reflects how science research institutes operate. People work to their strengths and share their findings with each other.

**Collecting eDNA**

Begin the project by choosing an area from which to collect a water sample for eDNA analysis. What might you expect to find? Are there biosecurity issues that you are aware of?

As a large group, discuss the central question: Detecting marine invaders along our coastline – what could we investigate?

Alternatively, create your own central question about freshwater or native forest invaders.

**Making a plan of action**

Once the eDNA data comes back, divide up the tasks required to analyse the information and make it available/accessible for others.

Following is an example of how one class shared tasks to create a group project for their local science fair. The information can be shared in many other ways – through your school or presented to the local council, hapū, conservation groups or others.

***Research team***

* Develop research questions linked to biosecurity.
* Research the answers to the questions.
* Create descriptions of species of interest – including their habitats and adaptations.
* Write mihi about the species – including their habitat and relationships.

***Analysis team***

* Create graphs and tables of data from the DNA sequencing.
* Present conclusions based on data from the DNA sequencing.

***Recording team***

* Draw and/or photograph species of interest.
* Create a slide show of the project from start to finish. Provide notes and annotations.
* Write an article for the school newsletter with the project’s aim, methods, conclusions and potential actions.

***Design team***

* Lay out and create a display board. This can be for the classroom, school office, science fair or local environment centre.

***Digital team***

* Create a 2-minute video about why people should care about the project and its findings.

**Next steps**

After collecting, analysing, curating and presenting your findings, what might your next steps be? For example, establishing annual eDNA testing and analysis to provide longer-term monitoring data, an information campaign via social media, designing/creating a mural regarding biodiversity issues or volunteering with a local conservation group.

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