

Links to the New Zealand Curriculum

Science

Nature of Science

Investigating in science

- Students can carry out investigations using a variety of approaches: observation, classifying and identifying, pattern seeking and exploring, data collection and analysis.
- Students can build on prior experiences of forests and the threats to natural ecosystems, working together to share, examine and question.

Communicating in science

- Students can build an awareness and understanding of how different cultures view a local ecosystem.
- Students can integrate their experiences in a natural fragment with texts and discussion to show an understanding of concepts such as biodiversity, interdependence and carrying capacity.

Participating and contributing

- Students can use their growing science knowledge when considering issues of natural ecosystem degradation, fragmentation and ecological restoration.
- They can explore various aspects of the issues, consider possible alternatives and then develop strategies, make decisions, design, plan and take action.
- They can consider socio-scientific dimensions of pest control such as humane control methods and sustainability.

Living World

Life processes, Ecology

- Students can experience a local natural fragment where native plants and animals live.
- Students can understand the life cycle of plants.
- Students can investigate and observe how living things are suited/ adapted to their particular habitat and how they respond to environmental changes, both natural and human induced (e.g. Explain reasons for the special characteristics of New Zealand's flora and fauna. Explain differences between the plants that live in the canopy compared to the under-storey. Explore adaptations that wetland species have that make them able to thrive in this habitat. Explain why pests are successful).
- Students can observe how ecosystems can be affected by human actions (e.g.

Experience and explore the impact of an introduced species on New Zealand's native flora and fauna. Learn about, through hands-on experience, a method to manage/ control the impact of an introduced species. Learn how some plants brought to New Zealand for economic or aesthetic purposes have become weeds and now threaten the health of our native ecosystems).

Technology

Technological Knowledge

- Students can learn about, observe and discuss current pest control technologies.
- Students can develop an understanding about monitoring techniques.

Nature of Technology

- Students can understand how society and environments impact on and are influenced by technology in historical and contemporary contexts and that technological knowledge is validated by successful function (e.g. explore this in the context of developing and or using successful monitoring techniques, explore this in relation to different management measures (pest control) taken to conserve or protect an ecosystem/ species.
- Students can understand that technological outcomes are recognised as fit for purpose by the relation between their physical and functional natures. (e.g explore this through design and testing of control or monitoring equipment).
- Students can consider ethics, protocols, codes of practice and the needs of and potential impacts on stakeholders and the environment.

Social Sciences

Students can gain an understanding of the cultural and historical significance of a natural fragment by:

- Understanding how people make choices to meet their needs and wants (e.g. exploring the reasons for introduction of plant and animal pests).
- Understanding how places influence people and people influence places (e.g. in relation to changing attitudes and values towards forests, waterways and wetlands).
- Understanding how the status of Maori as tangata whenua is significant for communities in NZ. (e.g. through learning about how local iwi used and valued and respected the land, plants and animals as a resource).
- Understanding how people view and use places differently (e.g. different ways that forest remnants are used and managed around the Waikato in the past and now, and how this relates to managing for the future).
- Understand how people participate individually and collectively in response to community challenges.(e.g. Learning about the different approaches that individuals and groups take to help the health of a forest fragment and how we can collectively and individually contribute to manage fragments so that they will be there for future generations).