

Kereru Unit Plans

SCIENCE: LIVING WORLD

LEVEL 1

Achievement Objectives

- Share experiences relating to the living world and group the living world according to some of its attributes
- Observe and identify parts of common animals and plants
- Investigate and describe changes in an animal over time.
- (Know how to) accept responsibility for the needs of an animal

Possible Learning Outcomes

Students will:

- Group animals into categories such as birds, fish, mammals
- Recognize kereru
- Identify its parts
- Compare kereru - body/ song/ feathers to other birds
- Share experiences of native birds
- Describe a kereru life cycle
- Investigate kereru predators and dangers to kereru
- Understand how staff and students can care for kereru



Learning Experiences

Students could:

- ❖ Work in groups, classifying pictures of animals and putting them into groups, such as birds, fish, mammals, etc
- ❖ Children could look at bird pictures and books about native birds and then colour in/draw pictures of kereru and other birds. Put up pictures and photos around classroom /school or make mobiles/ murals. Go on a kereru hunt, trying to spot and identify the kereru and count the number of kereru spotted.
- ❖ Visit local habitats and identify kereru
- ❖ Discuss in pairs or small groups their experiences with birds and then write about the experiences.
- ❖ Listen to recordings of birdsong
- ❖ Look at and touch native bird toys such as NativeZ soft toys. Use a mystery bag and get children to pull out a toy to discuss.
- ❖ Read 'Kereru: NZ Pigeon', then sequence the steps in the kereru life cycle.
- ❖ Investigate predators through interactive internet game: pests and predators
- ❖ Invite a speaker to talk about kereru and/or bird care and the threats to kereru
- ❖ Read 'The Bird Lady' and answer the questions in the back of the book/discuss.
- ❖ Make a poster or sign about how to support kereru
- ❖ Make a bird table or bird feeder
- ❖ Brainstorm ways the school could attract kereru
- ❖ Collect and plant karaka and puriri seeds



Resources

Poster: NZ birds 1: Reed Publishing

Building Science concepts guides:

#3 Birds: Structure, Function and Adaptation

#5 Fur Feathers and Bark

#17 Flight

Books:

Nature's Alphabet by *Andrew Crowe and Dave Gunson*

Discovering NZ Birds by *Sandra Morris*

The Bird Lady by *Lynette Evans* (Children's reader)

Earth Trek NZ: Nature Activity Book, Forest and Bird (bird table)

Kereru: NZ Pigeon by *Andrew Crowe and Peter Campbell*

Connected 1, 2001

Websites:

www.tki.org.nz/r/ict/ictpd/identify_nz_birds_e.php

(Activity including where they eat/what they eat/ feet/ beaks)

www.arb.nzcer.org.nz/nzcer3/science/living/0000%2D499/lw0016.htm

(Classifying)

www.arb.nzcer.org.nz/nzcer3/science/living/0000%2D499/lw0025.htm

<http://arb.nzcer.org.nz/nzcer3/SCIENCE/LIVING/0000-499/Lw0029.htm>

Pest game: (recommended):

www.tki.org.nz/r/enviro_ed/interactive/enved_interactive.html



LEVEL 2

Achievement Objectives

- Use differences and similarities in external characteristics to distinguish broad groups of living things
- Investigate & understand the general functions of the main parts of plants/animals
- Investigate & understand the changes in an animal over time.
- Investigate the responses of plants/animals to environmental changes in their habitats.

Learning Outcomes

Students will:

- Group animals into categories such as birds, fish, mammals
- Recognize kereru
- Identify its parts and the functions of those parts
- Compare kereru body/ song/ beaks/feet to other birds
- Describe the changes in the kereru diet over the seasons
- Describe a kereru life cycle
- Investigate kereru predators and dangers to kereru



Learning Experiences

Students could:

- ❖ Complete classifying activities from web links (see level 1)
- ❖ Make a kereru jigsaw puzzle or picture using 'Paint it '(ICT)
- ❖ Visit local habitats and identify kereru
- ❖ Discuss and compare pictures of native birds.
- ❖ Make plasticine models of beaks and feet and compare adaptations of kereru
- ❖ Listen to recordings of birdsong
- ❖ Construct a 2D or 3D model of a kereru and label the parts with its functions
- ❖ Read "Kereru: NZ Pigeon", Identify the food for kereru at different times of the year. Draw a table or timeline showing the information or complete a seasonal chart showing food in Spring/Summer/Autumn/Winter
- ❖ Plant seeds of the trees that kereru feed from
- ❖ Research what kereru eat/what eats kereru (could be a reading independent activity for able readers)
- ❖ Draw a map of the school showing where kereru food source trees are found
- ❖ Draw a design for possible future trees around the school- what birds or animals would each attract?
- ❖ Investigate predators through interactive Internet game: (see Level 1 activities)
- ❖ Design a postcard to send to their parents, encouraging them to buy native trees for kereru eg: puriri, miro, karaka, taraire



Resources

See Level 1 Resources in previous section.

Books:

Looking at the Tui and Pigeon by Elaine Power. Waiatarua, 2000.

NZ's Forest Treasures by Ronald Commetti.

Native Forests and Trees by Gordon Ell.

Discovering NZ Birds by Sandra Morris, Hodder and Stoughton, 1994.

Kereru: NZ Pigeon by Andrew Crowe and Peter Campbell

NZ Forest Treasures

School Journal: Part 1;No. 1; 1987

The Crashing of Kereru

Legends:

Maui goes to the underworld

Auckland Zoo:

Have 2 Kereru in its Native Bird aviary; Josephine and Napoleon.

Web based:

Auckland Zoo fact sheet:

www.aucklandzoo.co.nz/aucklandzoo/animal_search_detail.php?id=23

www.arb.nzcer.org.nz/nzcer3/science/living/0000%2D499/1w0020.htm

(Classifying activities)



LEVELS 3/4

Achievement Objectives

AO1

- L3: Distinguish between living things within broad groups on the basis of differences established by investigating external characteristics
- L4: Investigate and classify closely related living things on basis of easily observable features

AO2

- L3: Investigate special features of common animals and describe how these help them stay alive
- L4: Investigate special features of common animals and describe how these help survival into next generation

AO3

- L3 /4: Research and describe how species have become endangered

Learning Outcomes

- Students will identify features of kereru and compare to other species of pigeon
- Recognize Maori names for NZ wood pigeon
- Identify kereru call
- Compare kereru beak size and shape to other birds and compare their niches
- Investigate how kereru evade predators
- Identify reasons why kereru have survived and other NZ birds have become extinct.
- Understand the importance of the kereru in the seed dispersal of native trees
- Investigate why kereru have become endangered
- Describe kereru habitats



Learning Experiences

- ❖ Observe kereru in pictures and produce a wanted poster
- ❖ Visit kereru habitats and identify birds
- ❖ Research Maori names for wood pigeon and read legends associated with them
- ❖ Evaluate similarities /differences in different species of pigeon
- ❖ Listen to bird calls and ID them
- ❖ Observe pictures of native birds beaks and construct using plasticine. Discuss what each beak would be useful for.
Visit: www.arb.nzcer.org.nz/nzcer3/SCIENCE/LIVING/0500-999/LW0558.htm
- ❖ Using extinct birds kit contrast habitat/ diet/ appearance/ breeding of kereru and extinct birds- see internet sheet:
<http://arb.nzcer.org.nz/nzcer3/science/living/2000%2D499/lw2017.htm>. (Children could research in groups and present to class)
- ❖ Discuss what features have allowed the kereru to survive
- ❖ Write a letter to the editor explaining why kereru need public support
- ❖ Play interactive IT pest game (see Level 1)
- ❖ Research what kereru require in a habitat and where they are found in your local area.
- ❖ Visit local areas and identify and survey kereru food trees eg: Fernglen Gardens in the North Shore
- ❖ Write an article about local habitats in danger
- ❖ Write and video a play about kereru in danger



Resources

Books:

Discovering NZ Birds by *Sandra Morris*.

New Zealand's Forest Treasures by *Ronald Cometti*
(Also see books for Level 2)

Websites: Fact sheet sites:

www.nzbirds.com/kereru.html

www.whatbird.co.nz : bird calls

http://aviary.owls.com/wood_pigeon/wood_pigeon.html

www.hamiltonzoo.co.nz/index.asp?PageID:214582995

www.arazpa.org.au/Education_FactSheets_Kereru.html

www.wildaboutnz.co.nz/mainsite/Kereru.html

[www.doc.govt.nz/Conservation/001~Plants-and-Animals/001~Native-Animals/Kereru-\(NZ-Native-Pigeon\).asp](http://www.doc.govt.nz/Conservation/001~Plants-and-Animals/001~Native-Animals/Kereru-(NZ-Native-Pigeon).asp)

Kereru decline/habitat sites:

www.mtbruce.org.nz/plant_fornative_birds.htm

www.forestandbird.org.nz/dawnchorus/kereru.asp

www.123.co.nz/tiri/Fauna?PigeonNZ.htm

www.wwf.org.nz/news_and_events/April%20Spotlight%20-%20Kereru%20in%20crisis.cfm

<http://www.kcc.org.nz/factsheets.asp>

CDs:

Pukaha - Songs from the forest

Native Birdsong: Natural environment NZ Nature sounds KMP Music, Auckland

Fernglen gardens, Birkenhead



Achievement Objectives

AO4

- L3- Explain where and how kereru live
- L4- Use simple food chains to explain the feeding relationships of familiar animals and investigate effects of human intervention on these relationships.

Learning Outcomes

- Identify where kereru can be found in their local environment
- Investigate why they live in these areas
- Construct a food chain for the kereru
- Investigate the impact humans have on this food chain

Learning Experiences

- ❖ Survey people about kereru sightings
- ❖ Research the kereru diet, and identify local areas where these trees may be present.
- ❖ Design a plan of how to attract more kereru to the area/school, for example planting a kereru garden
- ❖ Research where and how kereru live and complete fact sheet (Research sheet-see resources)
- ❖ Observe food chain in Kukupa/Kereru DOC resource. Create mobile interconnecting all animals involved.
- ❖ Food web game: Children take on the identity of an animal of their choice and label themselves. Take turns handing ball of wool to children they will eat or be eaten by. - Discuss what would happen if a human interrupted this process at several levels
Use <http://arb.nzcer.org.nz/nzcer3/SCIENCE/LIVING/2000-499/Lw2041.htm> to construct a food web. Identify effects of removing one animal from the food chain on the kereru



- ❖ Research why kereru are in danger and how humans can help. Make a powerpoint presentation that educates people about how to look after the kereru. Present the best ones to the school.
- ❖ Propagate kereru food trees and design a school garden including them
- ❖ Write to an MP about the plight of the kereru and make suggestions about community help

Resources

Kukupu care calendar: DOC 0800 585 872

KCC Magazine No.70 September 2003 Story : Kiri Kiwi and Willie Weka – Story about predators and kereru food sources

Kukupu/Kereru (NZ Native Wood Pigeon) Activity Pack DOC;
Includes food chain diagrams, labels, badge and stained glass activities, habitat, and other activities including maths and language

NZ Extinct Birds Kit *by Jenny Jones*

Websites:

Research sheet:

<http://arb.nzcer.org.nz/nzcer3/science/living/2000%2D499/lw2032.htm>

Research help and structure:

www.big6.com/kids/3-6.htm

<http://arb.nzcer.org.nz/nzcer3/SCIENCE/LIVING/2000-499/Lw2038.htm>

NZ Herald: Feast for the kereru 9/6/1997



Social Studies

Place and Environment Strand

Achievement Objectives

L1/ Why particular places are important for people

L2/ how people's activities influence places and the environment and are influenced by them

L3/ How different groups view and use places and the environment

L4/ How places reflect past interactions of people with the environment

Time, Continuity and Change Strand:

(This strand should be studied alongside science curriculum as a minor focus in order to give children necessary background information.)

Achievement Objectives

L1/ Ways in which time and change affect people

L2/ How past events changed aspects of the lives of communities

Learning Outcomes

Students will:

- understand why the forests around us are important to the kereru and us
- Identify kereru habitats and the importance of these
- Investigate how people use these habitats and the impact that has on animal life such as kereru
- Understand the impact of deforestation and introduction of predators to the forest and kereru

Learning Objectives

- Identify how change in forest environment affects people / birds
- Investigate changes in their local environment



Learning Experiences

- ❖ Brainstorm why we need trees, why birds need trees.
- ❖ Read 'Kereru NZ Pigeon'. Identify the trees eaten by kereru and what would happen if those trees were not there.
- ❖ Create an advertisement for puriri/ miro /nikau
- ❖ Construct a mural about kereru and their habitats; for an example: "The bird that flew over the forest of Tane"-Earth Trek book: Discusses pest and human intervention. P16/17
- ❖ Play 'The forest game', in a bush environment near you to encourage children to think about human impact on the forest.: <http://www.kcc.org.nz/educators/forest/game.asp>
- ❖ Discuss their local environment and sightings of kereru. You may like to survey number of kereru in your area (try areas of native bush including food source trees such as puriri)
- ❖ Observe poster "Kereru in Crisis"
- ❖ Design own poster representing the problems for the kereru at this time and how people can help.
- ❖ Interview parents/grandparents about changes to natural environment and their sightings of kereru. Were there more in the past?

Resources

Books:

Native Forests and Trees by Gordon Ell, The Bush Press, 2003

Earth Trek New Zealand: A Nature activity book for kiwi kids *By Ann Graeme.* By KCC Forest and Bird

Websites:

http://www.aucklandzoo.co.nz/aucklandzoo/news_holly_essay.php

<http://www.environment.org.nz/resources/DoC/>

Impact of removing native bush on birds:

<http://arb.nzcer.org.nz/nzcer3/science/living/1000%2D499/lw1003.htm>

Native Bush 🌿🏠

Learning Media item 04473

<http://arb.nzcer.org.nz/nzcer3/SCIENCE/LIVING/0500-999/Lw0630.htm>



<http://www.doc.govt.nz/Conservation/001~Plants-and-Animals/Tree-Planting-for-Native-Birds.asp>

Where to see native birds:

http://www.forestandbird.org.nz/enjoynat/birds/birds_in_nz.asp

Restoration:

<http://www.nznfrt.org.nz/restore.php>

<http://www.nzes.org.nz/links.html#kids>

<http://www.landcareresearch.co.nz/education/animalconservation.asp>

Poster:

Kereru in Crisis by Forest and Bird.

Resource kit about kereru/kukupa available from DOC



Achievement Objectives

L3/ How the ideas and actions of people in the past changed the lives of others

L4/ Causes and effects of events that have shaped the lives of a group of people

Learning Outcomes

Students will

- Investigate actions of people that have made changes to NZ landscape and their effect on animals and people
- Research changes to the environment in NZ and the distribution of kereru
- Read; 'The house that Jack built'. Discuss changes to the environment over the years in NZ. Construct a timeline of events working from the book.
- Highlight key facts in one of the Forest and Bird magazine articles on right. Using the information provided children could estimate the time it would take for kereru to become extinct.
- Identify what action they could take to prevent this decline.
- Provide a future plan for their family or school to provide resources for kereru.

Poaching and Protection:

Killing the Kereru by *Atkinson, R* 1993; February Forest and Bird, no. 267 p. 18-23
Distribution in Northland:

Motatau Kukupa by *Pullman, N&C.* 1997 Forest and Bird Nov 1997

For graphic organizers: <http://www.enchantedlearning.com/graphicorganizers/>

Books/Magazines:

Sophisticated picture book:

The House that Jack Built by *Gavin Bishop*

