Introduction

The suggested aim of this section is for students to learn about Pekapeka's native and exotic vegetation including both the historical environment as well as the re-vegetation currently underway. Students will have the opportunity to study and identify vegetation in and around Pekapeka.

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This resource provides information about vegetation at Pekapeka wetland and includes a list of books and websites suitable for students to further their knowledge of these, and other plant species.

Activity sheets can be manipulated and adjusted to suit the intended learning outcomes and photographs can be used as teacher aids or included in classroom activities, powerpoints and for other curricular activities.

The following activities are based on 'pre-visit', 'on site' and 'post visit' categories and can be chosen according to ages, levels, interests or needs.

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FLAX - harakeke
Phormium tenax

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The māori name for flax is harakeke. It is the main plant used for weaving kete (containers) and whariki (mats). Flax fibre (muka or whitau) is used to make traditional kakahu (cloaks). Today, harakeke is also used in non-traditional ways like creating pieces of art.

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Growth form

Harakeke has a soft growth form, it is not woody like a tree. The sword-like leaves are arranged in pairs around the growing point (rito) to form a fan.

Flowers

Harakeke flowers from late October through to February. Each flower stalk (korari) grows up to five metres tall from the centre of the fan. Each korari has a group of little branches, that grow out from each side of the main stem. These grow bunches of red flowers.

Pollination

The flowers are designed to be pollinated by nectar-feeding native birds – tui, korimako (bellbirds) and pihipihi (waxeyes). The seed capsules on harakeke form in summer on the upright flower branches. Each pod contains dozens of black, glistening seeds. When the dry pods burst open, the seed is scattered, and can be carried by water and wind.

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Pekapeka WETLAND

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STUDENT INFORMATION SHEETS

A set of Student Information Sheets have been prepared covering basic information on the main vegetation species present at Pekapeka wetland. This list is by no means exhaustive and we encourage additional research through the provided links and information sources listed on the following pages.

INFO400   **Flax (Harakeke)**
INFO401   **Cabbage Tree (To kouka)**
INFO402   **Bullrush (Raupo)**
INFO403   **Tea tree (Manuka)**
INFO404   **White Pine (Kahikatea)**
INFO405   **Carex (Purei)**
INFO406   **Toetoe**
INFO600   **Willow**

Activities

2

PRE-VISIT ACTIVITIES

- Learn about wetland plants and where they like to grow in the riparian zones.
- Learn about and make seed balls.
- Learn about different techniques of seed dispersal.
- Learn about plants that like to grow in specific environments.
- Learn about the different plants around the school.
- Use Activity Sheets ACT007, ACT009, ACT010, ACT011, ACT013, ACT014, ACT 015, ACT016, ACT017.

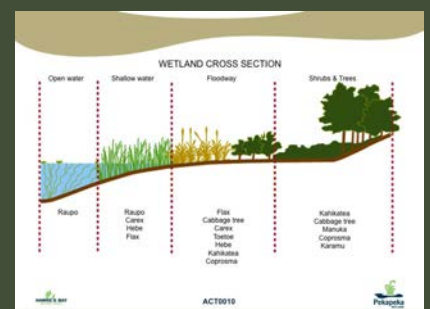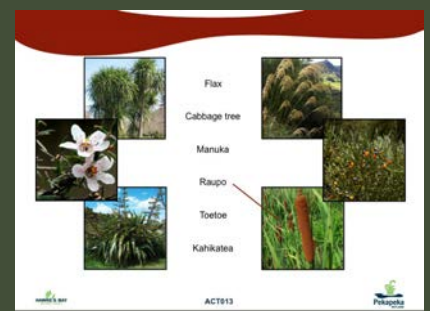### FIELD DAY ACTIVITIES

- Draw a cross section through the wetland and try to label the different plants that grow in the different riparian zones.
- Collect some seeds from native plants.
- Throw your seed balls!
- Get involved in restoration! Contact HBRC to attend a planting day or working bee.
- Weed around the shrubs and trees that have been planted.
- Take photos at the exact same spot every year and compare the photos for vegetation growth.
- Use Activity Sheets ACT001, ACT012.

POST-VISIT ACTIVITIES

- Design your own wetland. Decide what plants to grow and where to plant them.
- Visit a local native plant nursery and learn what they do.
- Sow the seeds you collected and create a native plant nursery at school.
- Use Activity Sheets ACT008, ACT009, ACT013, ACT 014, ACT 015, ACT016.

Additional Resources

BOOKS

Fun with Flax : 50 Projects for Beginners
Mick Pendergrast ;
photographs by Maureen Lander
Pub Raupo 2008
ISBN: 9780143009931
Shows how to make items ranging from a simple windmill, a dart and a whistle to more complex puzzles. Each project is described one step at a time with easy-to-follow line drawings and instructions.

The Cabbage Tree (New Zealand Trees series)
By Alina Arkins
Ill Len Doel
Pub Reed Children's Books 2003
ISBN: 1869487966
Provides information about where the trees grow in New Zealand, life cycles, history and special conservation projects.

Harakeke = Flax
By Judith Jones
Pub. Royal Society of NZ, 2003.
Alpha series.
Looks at how people have found many ways to harness the strength and flexibility of this valuable natural resource, and the development of the New Zealand flax fibre industry.

WEBSITES

www.hbrc.govt.nz
www.teara.govt.nz
www.doc.govt.nz
www.landcareresearch.co.nz
www.forestandbird.org.nz
www.nzconservationtrust.org.nz
www.learnz.org.nz
www.nzpcn.org.nz
www.wikipedia.org
www.shbt.org.nz
www.ecokids.ca
www.waireboulders.co.nz
www.gw.govt.nz

OTHER INFORMATION SOURCES

School Journals:

Part 1 No. 5, 2008. Raupo article by Jill MacGregor Find out more about this fascinating plant, including how early Maori used raupo.

Part 3 No.1, 2008. Operation Flax, story by Diana Noonan. The new neighbour intends to remove a much-loved flax bush, and Freya and her mum come up with a plan to save it.

Level JJ No.33, 2005. Build your Own Double Waka, article by Alana Bagnall. This activity explains how to make a toy waka from flax flower stalks.

Level 3, Nov 2011. Harakeke, story by Melanie Drewery. Miria discovers that some rules can't be broken.

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Images

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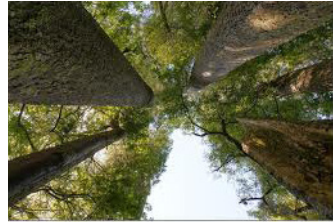IMG401

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