WHITEHORSE CITY COUNCIL

Kids for trees!

Activities & fun facts for primary kids

Learn how to:

Plant a tree
Design a garden
Experiment with plants

Plus

Cool facts about trees!

Tips on helping to create habitat for wildlife

LIFE is better with TREES

ACKNOWLEDGEMENT

Whitehorse City Council acknowledges the Wurundjeri Woi-wurrung people of the Kulin Nation as the traditional owners of the land. We pay our respects to their Elders past, present and emerging.

Contents

Trees are cool!

Let's discover more about the importance of trees and how you can make a difference at home and at school by planting more!

C'mon kids! Let's plant trees!

There are so many great reasons to plant more trees in our neighbourhoods. We need trees for fresh air, to help cool our planet and not to mention for all the animals that call trees home.

QUICK QUIZ

Can you match these words to their meaning?
Draw a line to link the word and meaning together

Flora	The place where living things naturally live and grow
Atmosphere	Biological Diversity. The variety of all the living things on earth. Plants, animals, fungi and even micro organisms!
Adaptations	Plants
Biodiversity	Animals
Fauna	The branches and leaves at the very top of a tree
Habitat	The layer of air around earth
Canopy	Features of a living thing that help it to survive in its environment

Photo: mannagum.org.au

An important tree

In Woiwurrung language, 'Wurun' is the name for Manna Gum tree and 'Jeri' is the witchetty grub found under the bark of the Manna Gum tree.

The Wurun tree is very special to the Wurundjeri people. The leaves are used in important ceremonies and bark, sap and leaves used for medicine and tools.

Let's get planting!

Selecting the right type of tree for the place you want it to grow is the first step!

Complete the instructions on how to plant a tree by writing in the missing words.

1. Dig a hole slightly larger than the pot. Loosen the soil on the sides and in the bottom to allow the plants r_ _ _ _ to penetrate the soil more easily.

2. Fill the hole with w_ _ _ _ and allow it to absorb into the g_ _ _ _ _ before planting. This will help the plant establish.

3. Give the plant a good d_ _ _ _ _ in its pot to help hold the potting mix together around the roots.

5. Tease out the roots a little, then place the plant in the hole, ensuring the top of the potting mix is level with or just below the g_ _ _ _ _ level.

6. Backfill loose soil around the roots so that all the space is filled. After planting, leave a saucer shaped depression around the p_ _ _ _ to catch rain and prevent water run-off.

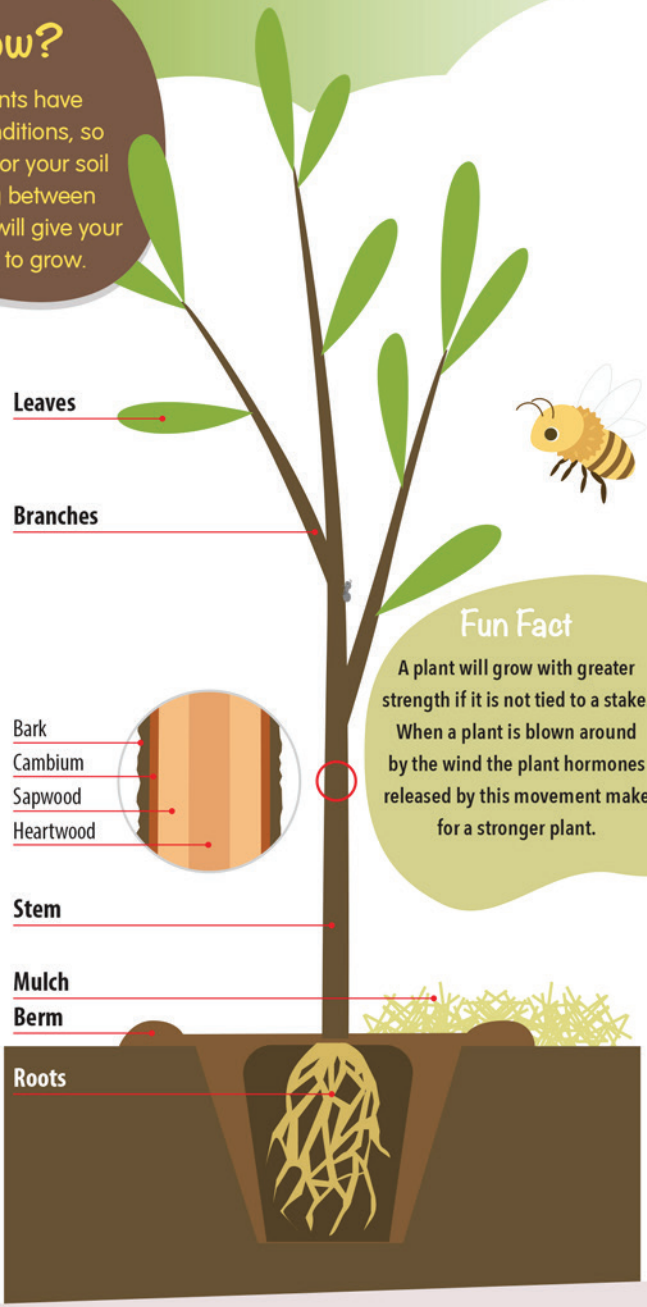
7. Mulch around the plant. Ensure that the m_ _ _ _ is not touching the stem of the plant.

Did you know?

All our indigenous plants have adapted to local soil conditions, so selecting the right plant for your soil conditions and planting between autumn and early spring will give your new tree the best start to grow.

4. Upend the pot and gently tap the plant out of the container. If it does not slide out, gently sq_ _ _ _ _ the sides.

8. W_ _ _ _ thoroughly to settle the soil and remove air pockets from around the roots.



Fun Fact

A plant will grow with greater strength if it is not tied to a stake. When a plant is blown around by the wind the plant hormones released by this movement make for a stronger plant.

Tiny, but powerful!

The smallest tree on earth is the Dwarf Willow Tree. It has adaptations that enable it to survive in freezing cold arctic environments. The Dwarf Willow only grows to 1-6cm tall. That's far smaller than a tennis ball!

8 reasons to plant more

1

Trees increase biodiversity

Plant just one tree in your yard and watch the Biodiversity grow!

Insects will be attracted to that tree which will then attract birds. Birds eat fruit from trees and then spread the seeds in their poop resulting in even more trees.

Lichen, moss and algae like to grow on trees too.

Trees for Small Birds

Many small birds rely on insects to eat and this helps support of health of large trees by keeping insect populations in balance.

2

Trees provide habitat for animals

Trees provide habitat for lots of animals to rest in, not to mention the food that they provide.

Big and small animals rely on leaves, bark, branches and even roots for survival.

Boo Boop!

It can take a very long time for trees to naturally develop hollows. You can help by building a nest box and securing it in a tree where you live. You can find lots of free designs and information online.

trees

3

IN CO_2 O_2 OUT

Trees help to improve air quality

Trees absorb and store carbon dioxide. Tree leaves inhale (breathe in) the surrounding polluted air and exhale (breathe out) clean oxygen for us to breathe!

Two mature trees can provide enough oxygen for four people each day.

4

Trees help to reduce noise pollution

Have you ever seen tall walls along the side of a busy road or freeway? Much like these noise barriers help to reduce the noise of traffic, plants do the exact same thing- naturally!

Plants reduce noise pollution through a phenomenon that scientists call sound attenuation, which is the reduction of sound intensity.

Branches, twigs and leaves on plants absorb and block sound energy. How clever is that?!

QUICK QUIZ

Question 1. There are more than 800 different types of Eucalyptus trees in Australia? **Answer:** True or False?

Question 2. How many different species of Australian animals rely on tree hollows?
Answer A: 50 **Answer B:** 100 **Answer C:** More than 300

Question 3. How old are the worlds oldest trees?
Answer A: 100 years old **Answer B:** 500 years old **Answer C:** 5000 years old

Question 4. Trees can be found all over the world except for one continent. Which continent?

Question 5. Cinnamon is the edible bark from a Cinnamon tree. **Answer:** True or False?

Find the correct answers on the inside back page!

Trees really are cool!

5

Trees help us to save energy and reduce our power bills

On hot days, trees create shade which helps to keep our buildings cool. A well placed tree can reduce the heat absorbed by buildings and reduce cooling costs by 30%.

On cold days, trees act as windbreaks. We can save money by heating and cooling our homes less often thanks to trees!

Think of trees as big shady beach umbrellas that are perfect for keeping you and your house cool on a hot day!

6

Trees help to lower the air temperature in summer

In a process known as **evapotransporation**, trees take up water from the ground and release it through the surface of their leaves, cooling the surrounding air

Shade from trees also block sunlight, helping to keep the ground below cool.

Even a dead tree is important!

Dead wood creates something called **nitrogen** and also tiny **habitats** for animals such as insects and moss. These little creatures are food for possums and birds.

7

Trees make places more attractive and provide shade for people

On a sunny day there is nothing better than making the most of the free shade from a tree!
Have you ever noticed that you are more likely to be drawn to shade from nature than from a building?
Humans have a special connection and attraction to nature that scientists call **Biophillia.**

8

Trees improve water quality

Trees don't just purify the air that we breathe. Did you know that trees also have an important role in managing and cleaning our water?

Tree roots improve water quality by filtering pollution and reducing flooding and erosion.

Trees lessen the impact of rain storms as some rain will fall on the canopy and evaporate into the atmosphere without reaching the ground.

100m

World's tallest flowering tree

And the winner of the world's tallest flowering plant goes to ... Australia! One Mountain Ash tree *(Eucalyptus regnans)* in Tasmania has been measured at over 100 metres tall.

This tree is so special that they have even given it a name - 'Centurian'! Centurian is thought to be around 400 years old and has survived storms, logging and even a recent bushfire.

CENTURIAN QUIZ

Is Centurian as tall as...

A: A stack of 55 cars
B: 3 and a half basketball courts, end to end
C: 'Big Ben' in London, England
D: All of the above

Find the correct answers on the inside back page!

0m

Where are the trees at

Imagine that you are a bird, high up in the sky, looking down at your neighbourhood.

Use these pages to draw or paste a map of your school or of your home. Colour the buildings in blue and the trees and plants in green.

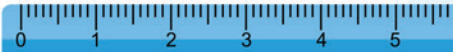
Make your drawing easy to do by using simple shapes like **circles for trees** and **squares for buildings.**

Take your time!
This drawing will become a 'map' that we will use later in the book!

your school or home?

IDEA

If you want to get the correct dimensions for your drawing, you can use a measuring tape to measure buildings and trees in meters. **Ask a friend to help out to make it easier!** To make your drawing 'to scale' convert each meter into a centimeter.



Let's design a garden!

Imagine that you are a bird again, flying over your neighbourhood.

You are tired and looking for a safe place to land and find shelter and food. You notice that some thoughtful humans have been busy creating some habitat for you!

Using the map that you have drawn on page 8 & 9, add in some more details about where you could plant more plants for shade and for habitat for animals!

Where could you plant some habitat for native animals?

Idea: Think about resting and eating places up high, down low and for the animals in between!

Where are the places that you play that do not have shade?

Perhaps there is a good reason why, such as being too close to buildings or pipes underground. Ask an adult if there is a reason. If there isn't – its time to plant a tree!

What type of plants will you choose to attract insects?

Tip: Many insects like colourful and fragrant flowers, others like to lay eggs in bark and amongst leaves. Why not plant a variety to please them all!

Will you include a birdbath with fresh water?

Idea: It's a good idea to have a bird bath near a tap to make refilling it nice and easy. A bird bath doesn't have to be fancy. You could have a go at making one yourself!

Is there space for one tree or perhaps a collection of plants in a garden bed?

Tip: Some fruit trees do better if there are more of its kind nearby. If the tree that you choose will grow quite big it might be best for it to be the only one!

ACTIVITY TIME

Match the name of the insect to the insect by drawing a line to connect the two.

Butterfly Cicada Lady Beetle Fly Dragon Fly Scarab Beetle

You too can create a garden that attracts birds, insects, butterflies, lizards, amphibians and much more

Help the echidina get to the ant!
Start here

Creating a wildlife friendly garden can provide critical habitat for our local fauna, preserve biodiversity and help connect remnant bushland so wildlife can traverse safely through our suburbs.

Ant Moth Bee Spider

Tick how many of these features you will include in your wildlife friendly garden design.

- ☐ Include clumps of dense (and preferably spikey) shrubs together where birds can shelter.
- ☐ Leave old branches and logs amongst plants in garden beds for lizards, grubs and insects.
- ☐ Use natural mulch or leaf litter for beetles and worms.
- ☐ Create a warm sheltered corner with some rocks in the sun for lizards.
- ☐ Plant daisies for butterflies.
- ☐ Keep cats in at night to protect nesting birds, reptiles and native mammals. Keep them confined, perhaps by using an indoor-outdoor cat enclosure.
- ☐ Keep the garden chemical and insecticide free.
- ☐ Try to incorporate several tall mature eucalypts or wattles.
- ☐ Create layers of vegetation including trees, climbers, shrubs and groundcovers
- ☐ Grow nectar plants for honeyeaters and bees such as Lightwood, Sweet Bursaria or Common Correa.
- ☐ Install a nest box.
- ☐ Place a birdbath in a high, sheltered location.
- ☐ Build a frog friendly pond.
- ☐ Grow native grasses and groundcovers such kidneyweed as an alternative to lawns.
- ☐ Cluster plants in groups and drifts (instead of as separated specimens).

Experiments with plants!

Experiment 1

Did you know that you can 'see' the oxygen that is made in leaves?

Step 1:

Fill two glasses with water and put them in a sunny place.

Step 2:

Put a leaf in one of the glasses. Try a spinach leaf or a leaf from your garden and make sure that the leaf is under the water.

Step 3:

Wait 10 minutes and observe. Are there tiny bubbles of oxygen on the leaf? Are there any oxygen bubbles in the cup that does not have a leaf?

What's happening?

When a leaf is under water the oxygen that would have been released into the atmosphere appears instead as bubbles.

Now let's investigate further

1. **Experiment with a different range of leaves:**
   - Can you count the number of oxygen bubbles?
   - Which ones produce more oxygen?
2. **Experiment with a timer:**
   - Do some release oxygen slower than others?
   - Which leaves produce bubbles faster?

ACTIVITY TIME

Write a letter

Write a letter to your teacher, principal or parents telling them why you think they should plant more trees at school/home.

Dear.....,

I'm writing to you because I believe that.....

Firstly,.....

Secondly,.....

In conclusion.....

Signed by YOU!

Your letter can be a bit like this:

Experiment 2

Have you ever wondered how plants get water from their roots to the top of their leaves? Impress your family with your magical ability to change the colour of leaves!

Step 1:

Fill a glass with water and a few drops of coloured food dye

Step 2:

Put a celery stalk with leaves into the glass.

Step 3:

Be patient!

Wait a few days and observe how the celery stalk absorbs the coloured food dye!

What's happening?

The cells of the plant are taking the water up the stalk to the tip of the leaves. It's called 'water transport by capillary'!

Now let's investigate further

1. **Experiment with a different range of plants:**
   - Can you turn a white carnation flower into another colour ?
2. **Experiment with a timer:**
   - Which plants absorb water the quickest?

Quiz answers

Quick Quiz Page Question 1: True Question 2: C Question 3: C. Unbelievable but true! The Giant Basin bristlecone pine, Fortingall Yew and Patagonian cypress trees really can live this long! Question 4: Antarctica Question 5: True

Centurian Quiz Answer: D - all of the above!

Learn more about plants and gardens!

Native plant nurseries

Whitehorse residents are fortunate to have two native plant nurseries, where helpful volunteers can help you to select suitable trees:

Greenlink

greenlinkboxhill.org

41 Wimmera St, Box Hill North 3129

Bungalook

bungalooknursery.com.au

107 Fulton Road Blackburn South 3130

Gardens for Wildlife

Gardens for Wildlife is a free program designed to support local residents to create inviting and supportive habitat for local wildlife, within their gardens.

A helpful Garden Guide Resource Booklet is available online to assist you with creating a garden that attracts a range of wildlife and strengthens your connection to nature.

WHITEHORSE
CITY COUNCIL

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