



## Introduction to Plants & Trees

### Teacher Information Sheet 1

In this session children are introduced to the great many ways in which trees enrich our life and our cities. The different types of plants are explored including groundcovers, shrubs & vines and with the main focus on trees. Children are introduced to ten ways in which trees benefit humans and show the critical role they play in balancing our ecosystems. A range of local native and cultural exotic trees of Townsville are explored.

Trees are important, valuable and necessary to our very existence. It's not too hard to believe that, without trees we humans would not exist on this beautiful planet. Trees are essential to life as we know it and are the ground troops on an environmental frontline. Our existing woodlands & forests and the trees we plant work in tandem to make a better world.

### Overview

Students will learn about trees through a brief talk given by Townsville City Council's Horticulture Officer & ISS staff.

### Activities

- » Introduce the different plant types (groundcovers, vines, shrubs & trees)
- » Introduce the different types & roles of trees in an urban landscape & cities.
- » Discuss how the Green Tree Ant fits in with trees
- » Mind map/brainstorm definition of biodiversity & present their ideas to the class
- » Students discuss and present their thoughts and ideas of how to maintain trees in the landscape
- » Explore what students would like to know about trees
- » Students write down why they think plants are great and hang ideas on a ceremonial tree.





## Tree Facts

### » Trees produce Oxygen

A mature leafy tree produces as much oxygen in a season as 10 people inhale in a year. What many people don't realise is the forest also acts as a giant filter that cleans the air we breathe.

### » Trees Shade & Cool

Shade resulting in cooling is what a tree is best known for. Shade from trees reduces the need for air conditioning in summer.

### » Trees Clean the Air

Trees help cleanse the air by intercepting airborne particles, reducing heat, and absorbing such pollutants as carbon monoxide, sulphur dioxide, and nitrogen dioxide. Trees remove this air pollution by lowering air temperature, through respiration, and by retaining particulates.

### » Trees Fight Soil Erosion

Tree roots bind the soil and their leaves break the force of wind and rain on soil. Trees fight soil erosion, conserve rainwater and reduce water runoff and sediment deposit after storms.

### » Trees Clean the Soil

The term phytoremediation is a fancy word for the absorption of dangerous chemicals and other pollutants that have entered the soil. Trees can either store harmful pollutants or actually change the pollutant into less harmful forms. Trees filter sewage and farm chemicals, reduce the effects of animal wastes, clean roadside spills and clean water runoff into streams.

### » Trees Slow Stormwater Runoff

Flash flooding can be dramatically reduced by planting trees. One weeping paperbark, either planted or growing wild, can intercept more than 4000L of water annually when fully grown. Underground water-holding aquifers are recharged with this slowing down of water runoff.





» **Trees are Carbon Sinks**

Trees absorb and lock away carbon dioxide in the wood, roots and leaves. Carbon dioxide is a global warming gas. A forest is a carbon storage area or a "sink" that can lock up as much carbon as it produces. This locking-up process "stores" carbon as wood and not as an available "greenhouse" gas

» **Trees Help Control Noise Pollution**

Trees muffle urban noise almost as effectively as block walls. Trees, planted at strategic points in a neighbourhood or around your house, can reduce major noises busy roads and noisy industries .

**Web Information**

<http://www.soe-townsville.org/greentreeants/>

**Administration**

**Duration**

1 hr

**Max Students**

1 year group

**What's Required**

Classroom, writing materials, energy and creativity

**Contact**

Townsville City Council  
Integrated Sustainability Services  
4727 9525



Kids Greening Townsville



### Core Learning Outcomes

Science	SOSE
SS 1.1, EB 1.3 LL 1.1, 1.2, 1.3,	PS 1.2
EB 2.3 LL 2.1, 2.3,	PS 2.1, 2.2
EB 3.3 LL 3.1, 3.3, D3.4	
LL 4.1, 4.3	

