

# TURTLES IN SCHOOLS

# TERM 1 WORKBOOK



Photo credit: Ricky Spencer

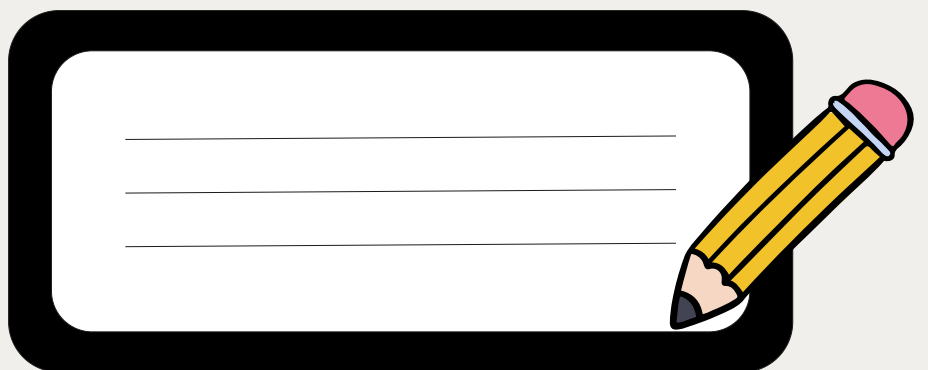




Photo credit: Dr James Van Dyke

# TURTLES IN SCHOOLS

Produced by the  
1 Million Turtles Community  
Conservation Program  
and funded by  
The Foundation for National  
Parks and Wildlife.

In the pages that follow, you will find a comprehensive set of lesson plans.

Our initiative is not just about imparting knowledge but fostering a deep connection between students and their natural environment and instilling a sense of responsibility and awareness of freshwater turtles and their conservation.

As we embark on this educational venture, we extend our gratitude to educators, students, and all those who champion the cause of conservation. The Turtles in Schools Program is not just a curriculum; it is a movement to inspire the next generation of environmental custodians.

**Thank you,**

**1 Million Turtles Community  
Conservation Program**



# WETLANDS LESSONS

## TERM ONE

## WETLAND HABITATS

- Learning Intentions
- Background
- Activities
- Curriculum Mapping

Photo credit: Marilyn Connell

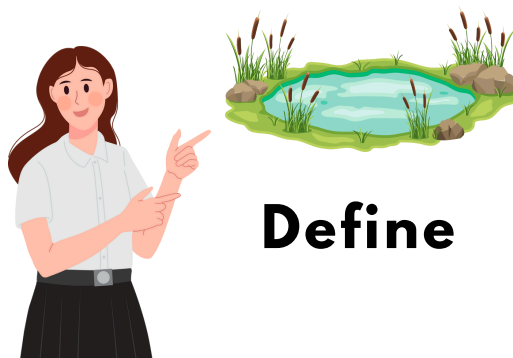


# Learning Intentions

(1) Define a wetland environment;

(2) Recognise the different habitats (i.e. riparian zone, aquatic zone) within a wetland environment;

(3) Identify aspects of the riparian zone that support the aquatic environment.



# Background Information

## What is a wetland?

A wetland is land that is covered temporarily or permanently by water (i.e. swamps, billabongs, lakes, marshes).

In a wetland environment there are two main habitats, which are interconnected:

1. The riparian habitat
2. The aquatic habitat

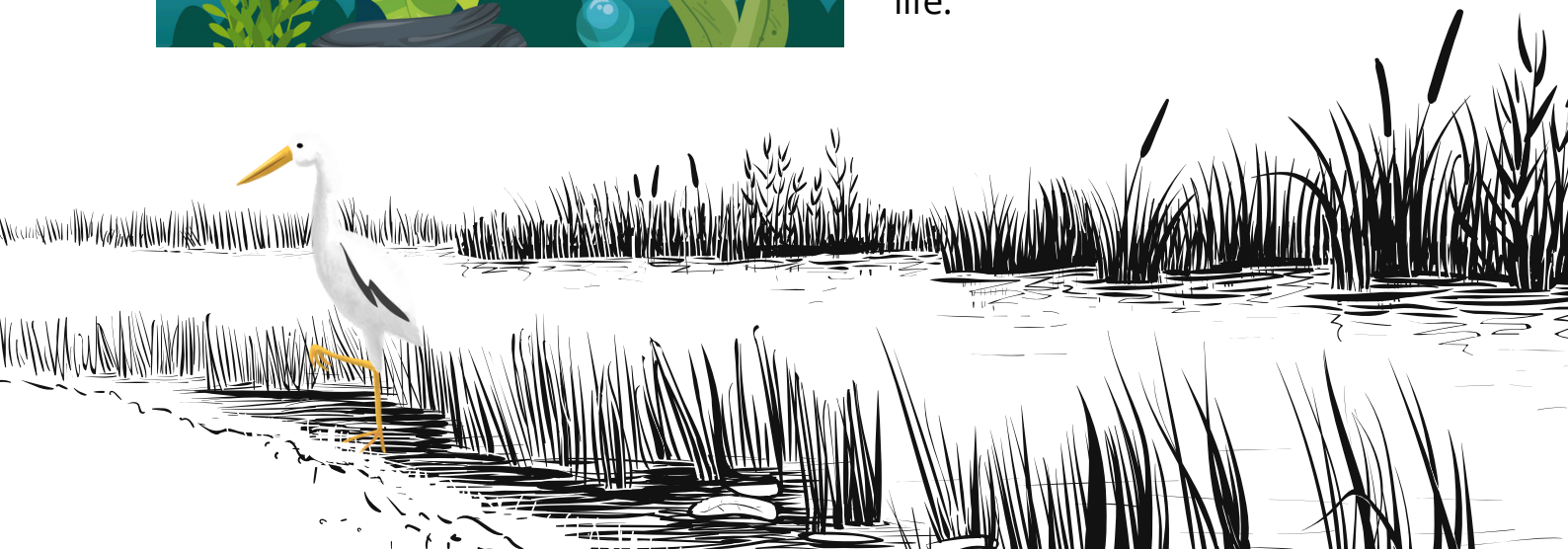


### ***Riparian Habitat:***

Riparian habitats are the areas of land that exist along the banks of a river, stream, lake or wetland. Riparian habitats are characterised by aquatic and semi-aquatic plants, as well as shrubs and trees.

### ***Aquatic Habitat:***

Aquatic habitats are the waters (i.e. rivers, lakes, ponds and wetlands) which support aquatic life.



# Function of the Riparian Habitat

Riparian habitats provide important functions which support both aquatic and terrestrial ecosystems.

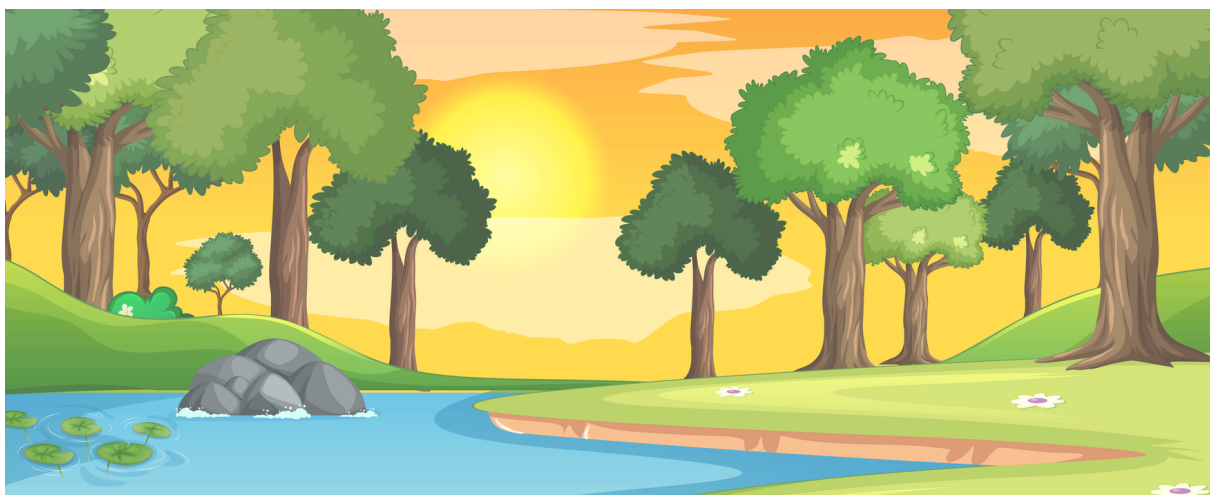
## ***(1) Bank stability, control of erosion and water quality:***

Riparian vegetation plays a crucial role in stabilising the banks of water bodies. The extensive root systems of plants help bind the soil together, preventing erosion caused by the force of flowing water. Stable banks reduce the amount of sediment entering the water. The root systems of riparian plants also act as natural filters, trapping pollutants and sediment from runoff before they reach the water, thereby improving water quality.



## ***(2) Shade and temperature:***

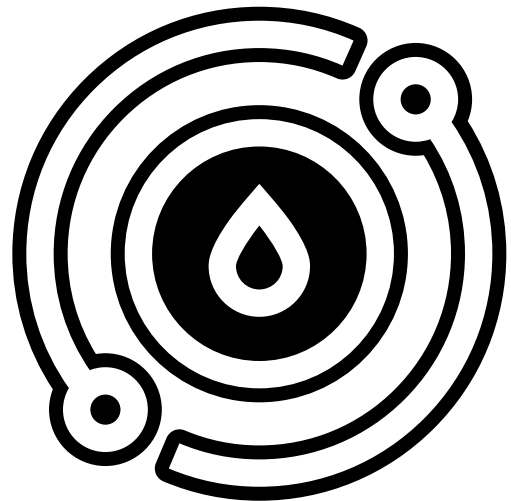
The plants within the riparian zone also provide shade to the aquatic habitat, which helps regulate water temperature, preventing excessive overheating of the water. This is crucial for the survival of many aquatic organisms, as they are adapted to specific temperature ranges. Additionally, the shade also helps control the growth of algae, preventing excessive algal blooms.





### ***(3) Nutrient cycling:***

Riparian zones act as transition areas where nutrients from the surrounding terrestrial ecosystems are transferred to the aquatic habitat. Leaves, branches, and other organic matter that fall into the water from riparian vegetation provide a source of nutrients for aquatic organisms.



This input of organic matter fuels the food web in the aquatic habitat, supporting the growth of algae, bacteria, and other microorganisms, which in turn become food for larger organisms such as insects, fish and freshwater turtles. The interconnected nature of nutrient cycling between riparian and aquatic zones is essential for the overall productivity and functioning of the ecosystem.

### ***(4) Wildlife Habitat:***

Riparian zones provide valuable habitat and resources for a wide variety of wildlife species. Aquatic organisms, such as fish and amphibians, often rely on the shelter, food, and spawning areas provided by the vegetation and structure of riparian zones. Many birds, including waterfowl and wading birds, depend on riparian habitats for nesting, foraging, and resting during migration. Riparian corridors can serve as important wildlife corridors, allowing animals to move between different habitats and facilitate gene flow and species dispersal.



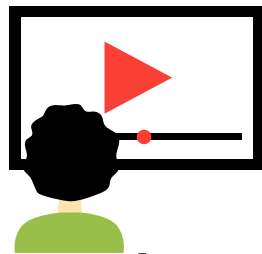
# Classroom Activities

## ACTIVITY 1

(1A) Watch the following video as a class. The video gives an overview of wetlands.

Link to video: <https://www.youtube.com/watch?v=k9UbKlBc3W4> [Copy and paste into browser]

(1B) As a class, discuss what you learnt from the video and what you know about wetlands in general. Write your ideas on the whiteboard.



**Video**



**Discuss**

## ACTIVITY 2

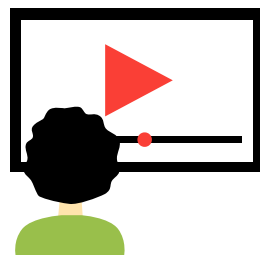
(2A) Watch the following video about the benefits of the riparian zone.

Link to video: <https://www.youtube.com/watch?v=PmeTuFQuF7k> [Copy and paste into browser]

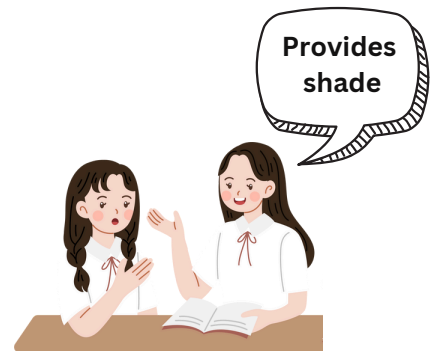
(2B) As a class, discuss the benefits of the riparian zone.



**Introduce**



**Video**



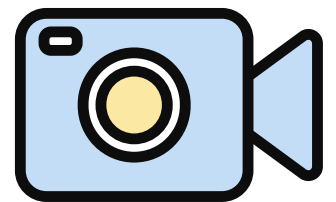
**Discuss**



# Video Reflection

Three things I learnt while watching

**3**



Two questions I have from the video

**2**



One fact I found most interesting

**1**



# Classroom Activities

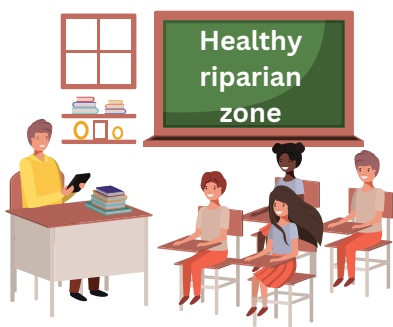
## ACTIVITY 3

(3A) Look at examples of a healthy riparian zone and a degraded riparian zone. As a class, discuss characteristics of the riparian zone which contribute to the health of the aquatic environment.

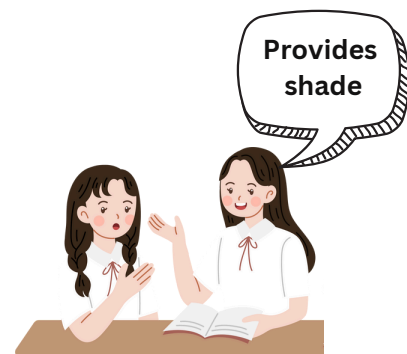
(3B) Draw a riparian habitat and its relation to the aquatic habitat.

(3C) Explain the features of the riparian habitat which support the health of the aquatic environment. Students might explain the following:

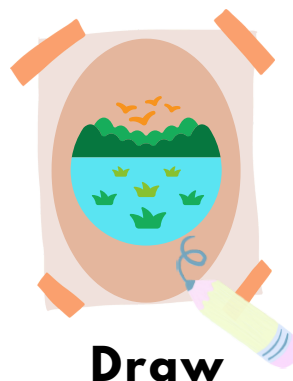
- Healthy riparian zone:
  - Trees, shrubs, aquatic vegetation
  - Bank stability, minimal erosion
  - Terrestrial wildlife
- Degraded riparian zone:
  - Grasses
  - Bank erosion



**Show**

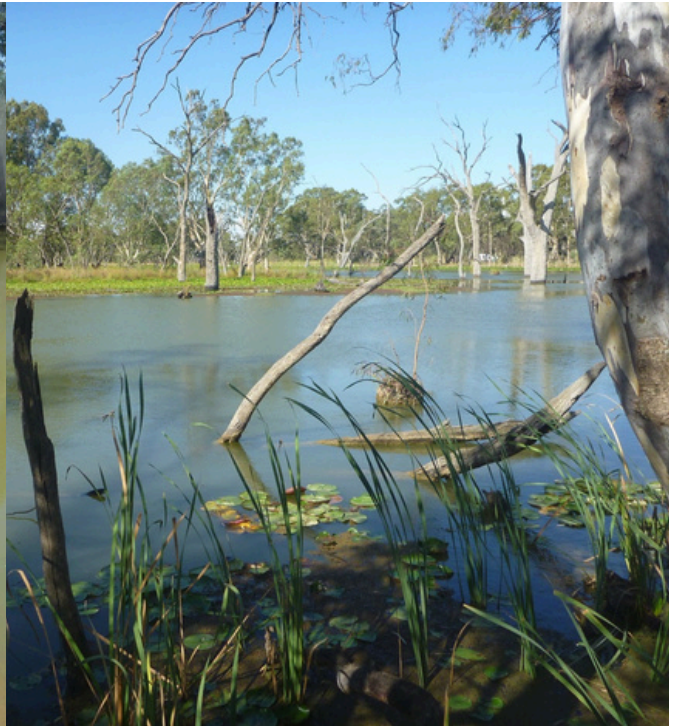


**Explain**



**Draw**

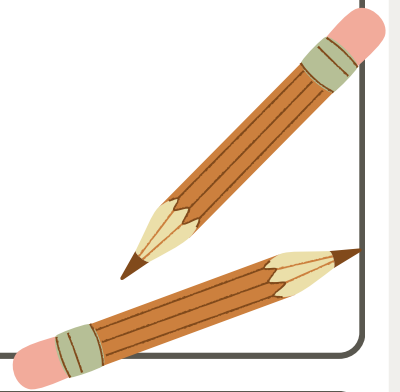
# Examples of healthy and degraded riparian zones





# Wetland Habitats Worksheet

Draw a healthy riparian zone and a degraded riparian zone



Explain how the riparian zone supports the aquatic environment