

TURTLES IN SCHOOLS

TERM 1 WORKBOOK

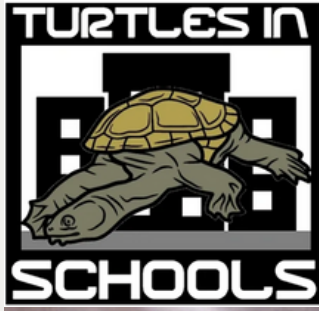
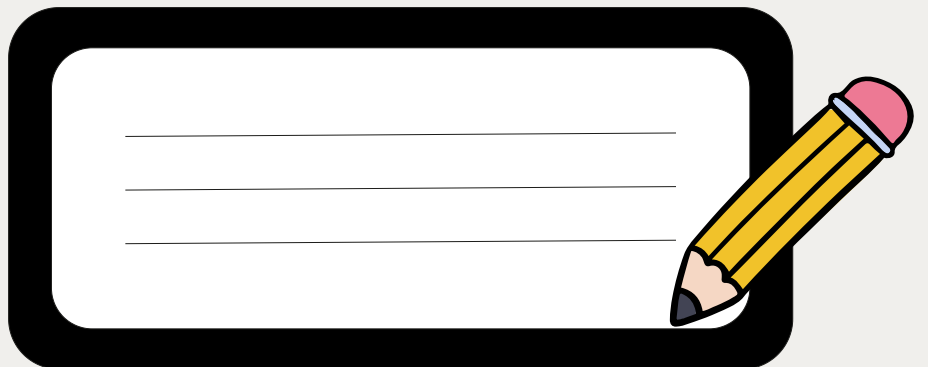


Photo credit: Ricky Spencer





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**

4 LESSONS

TERM ONE

THREATS TO WETLANDS

- Learning Intentions
- Background
- Activities
- Curriculum Mapping

Photo credit: Dr Donald McKnight



Learning Intentions

(1) Identify and describe threats to wetland environments.

(2) Brainstorm and propose effective mitigation strategies for addressing threats to freshwater habitats.



Brainstorm & Propose Ideas

Background Information:

Threats to wetland environments

(1) Habitat loss and degradation

Human activities, such as urban development, agriculture, and infrastructure projects, contribute to the alteration and destruction of wetland habitats. Wetland environments may be drained to meet the demand for residential or industrial infrastructure. This loss leads to a decline in biodiversity and disrupts critical ecological processes.

(2) Water extraction and altered hydrology

Excessive water extraction for agriculture, industry or urban water supply can reduce water levels in wetlands. Altered water flow, such as changes in river regulation and the construction of dams can impact the availability and timing of water inputs to wetlands.

(3) Invasive weeds and animals

Invasive species pose a threat to wetland environments by outcompeting native flora and fauna, disrupting natural ecosystems, and altering the structure of wetland habitats. These non-native species often lack natural predators, allowing them to multiply rapidly. Their behaviour may often lead to the displacement of native species, resulting in the loss of vital ecological functions and reducing the overall resilience of wetland ecosystems to environmental changes. Additionally, invasive species may introduce new diseases and parasites into wetland environments.



(4) Climate change

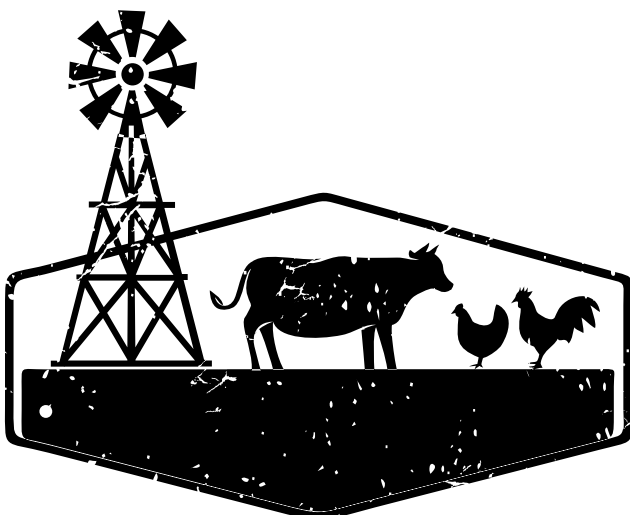
Climate change poses a multifaceted threat to wetland environments by influencing temperature patterns, precipitation levels, and sea levels. Rising global temperatures can alter the hydrological cycle, leading to changes in precipitation and evaporation rates, affecting water availability in wetlands. Additionally, increased frequency and severity of bushfires can directly impact wetlands, causing habitat destruction, soil erosion, and altering the composition of vegetation in the riparian habitat.

(5) Livestock

Livestock can physically damage wetland habitats through trampling of riparian vegetation and disruption of soil structure leading to the erosion of the riparian habitat and increased sedimentation. Trampling can also negatively impact the breeding and nesting sites of various aquatic species (i.e. turtles). Overgrazing by livestock can lead to changes in the structure and composition of plants in the riparian habitat and reduce the availability of food and shelter for aquatic and terrestrial species.

(6) Pollution

Elevated levels of pollutants, such as nutrients, chemicals, and sediments, can lead to water quality degradation, negatively impacting the health of wetland organisms.



Classroom Activities

ACTIVITY 1

(1A) As a class, discuss potential threats to wetland habitats.

(1B) In small groups research one of the threats to wetland habitats. Include references and/or a bibliography.

(1C) Propose ways to mitigate your threat.

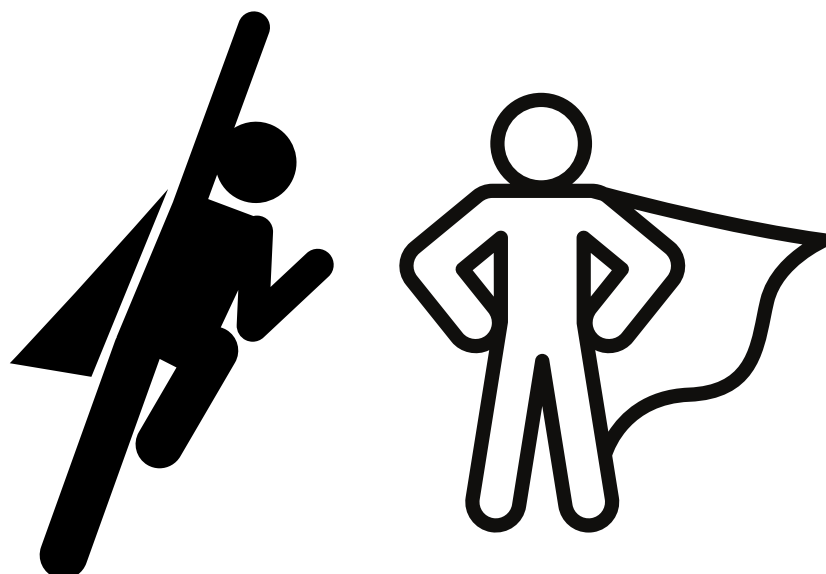


Discuss

ACTIVITY 2

(2A) Design a wetland superhero character and write a short story about how they use their powers to mitigate one of the threats to wetland habitats.

(2B) Draw or create your wetland superhero using art supplies



Wetland Threats

Fill in the information below about your chosen threat.

Wetland threat:

Description of the threat:

Impact of the threat on wetland environments:

Mitigation strategies for the threat:
