

# Lesson: A mangrove ecosystem

## Phase of learning

Years 3 - 4, Years 5 - 6

## WA Curriculum

K-10 English, K-10 Science

## Region

North Coast, Gascoyne Coast, West Coast

## Summary

Students will explore the function of a mangrove ecosystem through the construction of a storyboard.

## Outcomes

- Students will learn about the barramundi life cycle.
- Students will collaboratively build a mangrove ecosystem via a storyboard.
- Students will investigate interactions between organisms in the mangrove ecosystem.

## Duration

1 hour

## Preparation

In this lesson, you will construct a mangrove ecosystem storyboard. A story about the lifecycle of barramundi (Teacher Resource Sheet: [Mangrove Story](#)) will be read aloud to demonstrate the interactions between abiotic and biotic elements of a mangrove ecosystem.

This lesson assumes students have some prior knowledge of mangroves. The Lesson: [What are mangroves?](#) is a good introductory lesson on mangroves. Background information on mangroves may be found in the Fact Sheet: [Mangroves](#) and the Poster: [Mysteries of Mangroves](#).

A mangrove scene has been provided in Teacher Resource Sheet: [Mangrove scene](#) which could be projected onto your whiteboard. Alternatively, you could create your own scene using a felt board, fabric or cardboard.

A range of organisms that inhabit the mangrove environment have been provided in Teacher Resource Sheet: [Mangrove organism templates](#). You will need to print and cut these out and

decide the best way for your students to attach them to your mangrove environment.

### Western Australian curriculum

LEARNING AREA	STRAND	SUB-STRAND	CODES
Science	Science understanding	Biological sciences	ACSSU073, ACSSU094, ACSSU072
English	Language	Language for interaction	ACELA1488,
English	Literacy	Interacting with others	ACELY1709

### Steps

1. Explain the concept of a storyboard to students if necessary. Engage students in a discussion recalling prior learning about mangroves.
2. Read Mangrove Story to your class. Have the mangrove organisms laid out so students can see them. Ask students to listen carefully and indicate when they may be able to add something to the storyboard.
3. Discuss your mangrove ecosystem once completed. Why do organisms live where they live? How are they adapted to living in mangrove ecosystems? How would the organisms respond in high and low tide conditions? What might happen if the trees were not there? What do herbivores and carnivores eat in a mangrove community? What are other roles played by mangroves? What would happen if one of the animals was removed from the ecosystem? What influences do humans have on the ecosystem?
4. Keep your storyboard intact for the Lesson: [Food Web](#).

### Related resources

[Fact Sheet: Mangroves](#)

[Lesson: What are mangroves?](#)

[Teacher Resource Sheet: Mangrove Scene](#)

[Teacher Resource Sheet: Mangrove Story](#)

[Teacher Resource Sheet: Mangrove organism templates](#)

[Lesson: Food Web](#)

### Keywords

Abiotic, anaerobic, decomposers, detritus, ecosystem, food chain, food web, germinate, intertidal, mangrove, primary consumer, primary producer, productivity, secondary consumer, tertiary consumer, mangroves as a habitat, life in the mangroves