

MANGROVE EXPLORERS

Ages 6+

Learning Objectives

- Observe and Identify the different types of mangroves in your area
- Be able to sketch and identify the main features of each species.

Summary: The purpose of this lesson is to encourage students observation and species identification skills. During the outdoor walk, students will have the opportunity to collect mangrove samples. Once back in the classroom students will need to sketch each species and its specific characteristics.

Subject: Science

Time: 2-3 Hours

Structure: The activity includes two classroom sessions and an outdoor walk.

- Classroom session 1: Presentation on basic mangrove biology to support identification abilities in the field. (30 minutes)
- Outdoor session 2: Go on a mangrove walk to identify different species of Mangroves and collect samples to sketch in the classroom. Students can also take photos for reference later. (60 minutes)
- Classroom Session 3: Discuss findings, group samples into the different species, sketch and label each type of mangrove and its individual leaves and root systems. (30 minutes)

Before the Lesson

- Ensure all necessary resources are available.
- Familiarize yourself with the location and what mangrove species are accessible in your area .



Planning considerations

- Think ahead and decide on the best season, day, and time for the nature walk.
- Assess and potential hazards you may encounter on your walk.
- Inform students at least a day before the walk.
- Let students and parents know about the walking route.
- Advise students on what to take with them on the walk.
- Inform students on proper clothing to wear on the walk.
- Ensure required permissions have been approved and any permission slips have been signed for each student to join the nature walk.
- Prepare for the walk in the mangroves:
 - Discuss expected behavior on the walk with students.
 - Prepare the route.
 - Charge cell phones and cameras.
 - Prepare and pack the necessary materials for the walk.

Required Resources

- Pencil and notebook, coloring pencils, magnifying glass, tote bag for samples, mangrove ID sheet, book or power point.

Discussion/Reflection

- Summarize the major roles of mangrove wetlands in contributing to a healthy habitat for wildlife.
- Ask the students if their own attitudes about wetlands are different now as a result of doing this activity. If yes, how? How is our own well-being connected to that of a wetland ecosystem?

References

- Mangrove Action Project, Coastal Education Guide 2022

Procedure

1. Start lesson by asking students if they know what a mangrove is. Show students a video or give a presentation on the basic features of a mangrove tree and discuss the functions of wetlands.
2. In your presentation, be sure to cover the types of mangroves found in your area to prepare the students for what they may see on their walk.



3. Encourage students to ask any questions they may have before you depart for the nature walk.
4. When you arrive at your field trip location, provide students with an introduction to the area and remind them of the expectations outlined beforehand. Go over any potential hazards and give a brief overview of what you will be doing.
5. Guide students through the mangrove area, pointing out the different types of mangroves and their identifying features. If allowed in your area, collect samples from the trees (like leaves and propagules) for the students to inspect up close.
6. Explain and encourage students to note the different characteristics noticed on each species.
7. Remind students to keep an eye out for any wildlife that could be spotted on the walk. The quieter the group, the better your chances of spotting something will be.
8. Ask students if they can identify any human impacts in the mangrove forest (examples include trash, roads, buildings).
9. Conclude your nature walk by answering any questions students may have on the surrounding environment. Remind them that the lesson will be continuing in the classroom and to keep any samples collected.
10. Once back to the classroom, have students group their mangrove samples by type and sketch them in their notebooks, labeling key features.
11. Encourage students to add other elements from their walk to their sketches, these could be things like wildlife spotted on the walk or human impacts identified.
12. At the end of the class, have each students describe their favourite part of the activity to the class.

