

# LESSON *plan*

Grade: Standard 3

Subject: Science

Cycle 4

Week 2 of 3

Lesson #10

Duration: 60 Minutes

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Lesson Standards: SC 6.07 Determine, describe, and investigate how selected plants and animals grow and discuss the factors that affect the plant and animal growth rate.

Learning objective/s:

- Investigate and describe how selected local plants and animals grow.

Materials needed:

- Plant Life Cycle
- Red Mangrove Video
- Mangrove Identification Handout (1 per pair of students)
- Mangrove Color Sheet (class set)
- Magnifying glass or hand lens
- Colored Pencils
- Bean Seedling Journal Handout from lesson 7

Key Vocabulary:

Propagule (PRAH-puh-gyool)

Cotyledon (*kāda'lēdn*)

Hypocotyl (*hīpə'kät*)

Plumule (*plōomyōl*)

Hook/Intro: (10 min)

"We've a lot about the red mangrove trees on Ambergris Caye. Since learning about them, have you had the chance to spot one in its natural habitat?"

Lead-in:

"Did you know that there are actually four varieties of mangrove trees on the island? Today, we will explore how to identify both the white and black mangrove trees."

Direct Instruction:

"Today, we are going to learn to identify the white and black mangrove trees. It would be easy to tell them apart if the red, white, and black mangrove trees were those colors, but they are not. Let's learn how to tell them apart so that we can identify them in the wild."

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## Direct Instruction (Continued)

- Show "Mangrove Species Identification" (2:50 minutes) on YouTube
- Pass out and discuss the "Mangrove Identification" handout reviewing the differences for each type of mangrove tree. Hand out the "Mangrove Color Sheet" for students to accurately color.
- Carefully carry the hydroponic seed chambers to each group of students. Remind students to open them carefully and not to remove the seedlings from the chamber.
- Once students finish their color sheet, they will draw, color, and label their seedling

## Independent Practice:

Students will draw and color the seedling, then add arrows to attach the vocabulary word to the corresponding part of the plant.

## Closure:

Take a nature hike and use the handout to identify the 3 different types of mangrove trees.