

Vanishing Seagrass

About This Lesson

Time Frame: One class period

Grade Level: 3-12

Academic Question: How does the absence of seagrass effect marine organisms?

Objective: To observe the effects on marine life when habitat is destroyed or changed.

Application:

This short and simple game demonstrates the importance of seagrass to aquatic species. It also highlights how easily seagrass systems can be damaged.

Background:

Many South Texas bays contain small patches to many acres of seagrass. These seagrasses provide many benefits to the aquatic environments including: bottom stabilization, water filtration, oxygen production and nursery habitat. These seagrasses require relatively clear water and sunlight. In areas where dredging and/or run-off occurs, the water may cloud up and seagrass may die. Other factors that may cause seagrass die off include prop scars from boat groundings and shading from piers. When seagrasses are damaged/removed, they will take several years to reestablish or may never return.

Getting Started

Materials:

- 36 2X2 inch squares of green construction paper
- Package of “goldfish” crackers
- Colored markers

Process:

1. Develop an interrupted case study scenario appropriate to your region, based on the background information provided above.
2. Begin with a discussion of seagrasses and their importance to South Texas Bays emphasizing their importance to both small and large fish for nursery and feeding areas. Then present the case study to the students.
3. Lay out the 36 squares in a large rectangle (approx. 12x12 inches)
4. Have a pair of students chose a goldfish and mark it with a colored marker.
5. Have the two students place the goldfish on a green square.
6. Game instructions-

7. The players are only able to move their fish one space- right or left, or up or down (not diagonally)
8. One at a time have the players move their fish and then take up any square of (seagrass).
9. As the players move their fish and remove the seagrass they must state what caused the “death” of the seagrass.
10. Continue playing until one player is “blocked” and unable to move.

Evaluation/Extension:

- Have students identify and research the five species of seagrass found in Texas.
- Using Google Earth, have the students identify seagrass and dredging scars found in Redfish Bay, and the Laguna Madre.
- Have the students go seining in a seagrass bed and an open area to see the differences in species found in each area.

This module was originally developed as part of the “Hurricane Recovery Workshops for Students”, held in Corpus Christi in 2017.