The Hydrilla Game

Tracking the journey of an incredibly invasive plant.

Teacher Kit Includes:

Game overview

Lesson plan

Scenario cards
(8 sets of 8 laminated cards)

Station cards
(8 laminated cards)

Station beads
(8 containers)

Bookmarks with string
(for students to keep)

Artifical hydrilla plant snippet

Binder clips
(hold up station cards)

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Tracking the journey of an incredibly invasive plant.

Ages: 4th- 8th Grade Ideal for 5-20 students

Game Overview

One of Florida's most invasive aquatic plant species is hydrilla (*Hydrilla verticillata*). The Hydrilla Game was designed to give students an understanding of how hydrilla is transmitted from one environment to another. It demonstrates how a hydrilla plant moves through an environment and increases its range, causing problems along the way.

For the activity, students pretend to be a hydrilla 'sprig' as they visit eight different aquatic habitat stations. Each station has a different color represented by a colored bead.

8 Habitat Stations

1. Aquarium *(Blue)*
2. Creek *(Yellow)*
3. Drainage ditch *(Red)*
4. Hydrosoil *(Black)*
5. Lake *(Green)*
6. Retention pond *(Purple)*
7. River *(Brown)*
8. Spring *(White)*

Learning Objectives

- Discover how easily hydrilla spreads from habitat to another and how it is often a result of human behavior.
- Understand why hydrilla is considered an undesirable, invasive plant.
- Understand how humans can help prevent the spread of hydrilla and other invasive species through our own actions.

Key Questions

- What is hydrilla and where is it found?
- How does hydrilla move around different habitats?
- What are hydrilla's potential impacts on the ecosystems it inhabits?

Instructions

1. **BEFORE CLASS:** Set up the 8 habitat stations with bags/boxes, station cards, scenario cards, and matching colored beads.
2. **DURING CLASS:** Before you start the game, read the introduction to the game (see page 2), review the learning objectives, key questions, and habitat stations
3. Divide students into 8 groups and hand out their string and bookmarks.
4. Assign each group to a random station to start at. At their first station, students should take a colored bead and place it on their strings.
5. Once they have their first bead on their strings, instruct students to each grab ONE scenario card from the station bag/box. Students should take turns reading their cards outloud to their groups. Each scenario card will tell each student which station to go to next.

   NOTE: Some students will be asked to stay; they should add another bead and draw a new scenario card.
6. Continue for 20 - 25 minutes or until students' strings are full.
7. End the game with classroom discussion.

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Introduction

NOTE: *Read this introduction to students before starting the game.*

Hydrilla is a non-native invasive aquatic plant that was brought to Florida from southern India. It is thought to have been introduced in the 1950's through the aquarium trade. Hydrilla grows rapidly (up to an inch a day) and as it grows it can spread to fill an entire water body. It has multiple methods of reproduction, like many non-native invasive species. It reproduces by fragmentation, auxillary buds (turions) and via underground tubers.

If not controlled, hydrilla can completely infest rivers and lakes, thereby displacing native plants and altering habitats. Hydrilla form dense mats, shading out other important native species. It blocks rivers and dams and impacts boating, swimming and fishing.

Floridian's spend millions of dollars every year to control hydrilla, but it is a plant that just keeps giving, spreading and growing. This activity explores some of the ways hydrilla spreads. When we are done, maybe we can think of some ways we might help stop the spread.

Discussion

NOTE: *Revisit the learning objectives with students before starting the discussion.*

Once the string/cord/bracelet is full of beads, teachers should encourage students to return to a common area and facilitate a discussion about where each hydrilla 'sprig' has been. The pattern of beads placed on each string will tell a story about where the hydrilla traveled and how. This discussion should primarily be student-driven, with individuals actively engaged in sharing their particular journeys with classmates.

End with a discussion about what students can do to help. Encourage students to take their bracelets home and discuss the game with others.

Discussion Questions

- Where did you spend the most time?
- How did the hydrilla move from one habitat to another?
- What did you learn about hydrilla?
- How does hydrilla affect different habitats (boat traffic, flooding, etc.)?
- Can you identify of other scenarios that would introduce hydrilla to a new habitat?