

# Marsh Munchers

Location: RiverWalk Learning Station 5

Program Levels: Daisy, Brownie

**Objective:** Girls will identify components of a food web in a marsh and understand the interconnectedness of those components.

## Materials Provided

- Timer
- Identity Envelopes containing behavior cards and food tokens (detritus-eaters)

## Activity Steps

1. Before they can play “Marsh Munchers” girls must understand a little about marshes. Explain that marsh ecosystems are the grassy areas near rivers or oceans. As the grass dies, it turns into “detritus” which is just another name for decaying plant and animal matter. Lots of animals eat this detritus, helping to keep the water clean. In turn, other animals eat these detritus-eaters. In playing the game girls will act out dinnertime in a marsh!
2. Explain the following rules of the game to the girls:
  - Each girl represents either a predator or a detritus-eater.
  - Each detritus-eater has five food tokens, representing five marsh animals of the same species.
  - Detritus-eaters must give one food token to a predator each time they are tagged.
  - Each predator must acquire at least 10 food tokens to stay alive during a tidal cycle (one round of the game).
  - Each predator can only acquire one token from each other organism at a time during a tidal cycle.
  - Detritus-eaters keep eating until they run out of food tokens. Once they run out, they sit quietly in place *decomposing* in the marsh.
  - All animals must display their feeding styles during the activity.
  - Detritus-eaters will eat from a stationary squatting position, while predators will walk and feed.
3. Pass out one envelope to each girl. (*for fewer than 25 girls, remove excess envelopes ahead of time, trying to keep a 1:4 ratio of predators to prey animals*) Tell the girls that they should look at the card inside the envelope to see their identity, but they should keep it a secret!! The only way others will know what they are is by the way they feed.

4. Define the play area for the girls and have the detritus-eaters spread out across it and begin miming their feeding behaviors.
5. Tell the predators that they can begin pantomiming their respective behaviors and “capture” prey, securing a food token each time. Remind them that they cannot simply run around and grab tokens – they need to walk and mime their behaviors, and they must move from one detritus-eater to another each time they feed.
6. After two minutes, call time and bring all girls together to discuss the results using the questions below to get started. *Time may be adjusted depending on the size of the group and playing area.*

### **Discussion Questions**

- Did every predator get 10 tokens during the tidal cycle? If not, why not? (some animals are more selective in their feeding preferences and may have a more difficult time finding food)
- Discuss the different ways the animals are connected to each other and the rest of their environment.
- Even though plants were not included in the game – remember that without them, the rest of the ecosystem will fall apart.

### **Extensions**

#### **On the Trail**

Draw a marsh ecosystem food web! Use the predator-prey interactions from the game as a starting point, then work to add in things like plants, decomposers, water, and other animals.

#### **Beyond the Trail**

Learn about the various types of wetlands. Explore salt marshes, mangrove swamps, bogs, freshwater marshes, and more. If you can, arrange to visit one. Consider going to the Battle Creek Cypress Swamp in Calvert County, MD—the northernmost Cypress swamp in the USA. Visit [www.calvertparks.org/Parks/CypressSwamp/CShome.htm](http://www.calvertparks.org/Parks/CypressSwamp/CShome.htm) for the location and more information.