

Illinois Endangered Species

Eco-Blocks Game



Understanding the Importance of a Healthy, Cohesive Ecosystem

For everything taken out of an ecosystem there is an effect on the system as a whole. Discover the different species that are endangered or threatened in Illinois by playing a game where you remove a species from the tower (ecosystem) by drawing a card.

Objectives:

- Students will understand that for an ecosystem to be healthy and cohesive, the organisms within the ecosystem must be present and healthy.
- Students will be able to understand that everything has a place in an ecosystem.
- Students will be able to see that when we remove an organism from an ecosystem, it causes the system to try and balance out until it can no longer do it, eventually causing the ecosystem to collapse or fail in some way.

Vocabulary

ecosystem - The combined habitats and communities, as well as their relationship with the air, water, soil, and energy, make up an ecosystem

organism - a living thing that has the ability to act and function independently

Setting up the Activity

- Set up a tower blocks 3 by 3 going opposite ways similar to *Jenga* tower
- Each block as a symbol or a color on both ends of the block that connect to the cards. You can use color or a symbol. The cards are set up to have Frog = animals, Leaf = plants. You can color code it anyway you want.

Essential Understanding

The blocks represent the ecosystem. Everything is connected. If we remove one component from an ecosystem, it impacts other pieces within the ecosystem. The ecosystem attempts to balance every time a piece is removed until it can no longer do so. Eventually the ecosystem becomes unhealthy, fails or collapses in some way.

Rules for the Game

1. Draw a card from the pile and read the card out loud.
2. On the front of your card is a symbol that tells whether you have an animal (frog symbol) or a plant (leaf symbol).
3. Find a block below the cardboard with the same symbol as your card. Pull that block out of the tower. Try not to let the tower fall over. Place the block you pulled on top of the tower. You cannot take a block from above the cardboard until there are no more moves below the cardboard
4. When the tower falls, restack the tower and place the cardboard on top. Reshuffle the cards



Questions for students to consider

- Why did the tower fall?
- How important each of the things were to the ecosystem?
- Did removing just one block cause the tower to fall, or was it caused by removing all the blocks? What did the remaining blocks have to do each time another block was removed?

Resources

Illinois Endangered and Threatened Species Listing, <https://dnr.illinois.gov/content/dam/soi/en/web/dnr/espb/documents/et-list-review-and-revision/illinoisendangeredandthreatenedspecies.pdf>

Wild About Pages, Illinois Department of Natural Resources, <https://dnr.illinois.gov/education/wildaboutpages.html>

University of Illinois, Prairie Research institute, Illinois Natural History Survey, *Ecosystems and Habitats in Illinois*, <http://www.inhs.illinois.edu/outreach/habitats/>

Vlahos, Nick, Journal Star reporter, "Illinois Ecosystems Threatened by increasing Isolation." <http://www.pjstar.com/news/20170624/illinois-ecosystems-threatened-by-increasing-isolation> (Notable statement from article. Since the mid-18th century, Illinois has lost about 80 percent of its forest cover, 70 percent of its wetlands and 99 percent of its original prairie, according to Mike Miller.)