

Predator / Prey

Environmental Education Lesson Plan
Edwards Camp and Conference Center

Summary

This game is a simulation of the animals in an ecosystem. The purpose is to create an awareness and appreciation of the delicate balance of life in a food chain/web while playing an exciting game. The students will be challenged to “think like animals” in order to get enough resources. This class covers concepts of animal adaptation, limiting factors, predation, natural disasters, and human impacts on an ecosystem.

Usage – This activity is appropriate for 3rd through 7th grade, year round.

IL Standards

12.B.1a; 12.B.1b

12.B.2a

12.B.3a

Objectives

The Students should be able to

- Discuss concepts relating to food chains/webs.
- Show an understanding of the requirements for living things
- Identify living and non-living factors that influence animal populations in the wild.
- Describe how living things depend on one another for survival.

Materials

- 6 Food and 2 Water Posts
- 8 Different shaped hole punches
- Arm Bands (Red, Blue and Green)
- Rubber Bands (Red, Blue and Green)
- Life Tickets (Red, Blue and Green)

Set-Up

- **Area Needed For Play:** The pine forest is the one of best place for this activity, or a large area of three or more acres. Within this area there should be a variety of habitats such as open fields, brush, woods, etc.
- Place the food and water posts throughout the play area.
- Check and make sure that there are enough life tickets, rubber bands, and arm bands for each student.
- Be sure that you have the boundaries clear

Introduction (10 Minutes)

Have the students define the terms “*predator*” and “*prey*”, then list some general differences in physical characteristics. Discuss how the sun is the source of all energy on the planet. In the natural world, what is able to turn sunlight directly into food? Plants! And plants are at the base of the food chain. From here, discuss the relationships between the animals, whether they are *herbivores* (plant eaters), *omnivores* (plant and meat), or *carnivores* (meat only), and their roles in the food chain – top predator, mid-level predator, or prey. *Note: Not all mid-level predators are omnivores.*

Next, have students identify the four basic needs - food, air, water, and shelter.. (Since we are dealing with creatures living within their own natural ecosystems, we will assume that air and shelter are both available.) In the game, the students will be looking for food and water. Would an herbivore need the same amount of food and water as a top predator? No. So, all animals have different needs...

Explanation of Rules (15 Minutes)

The goal of this game is to survive! Much like animals in the wild you are going to have to find the resources to allow you to survive. You will be divided into different roles, and each of them has different food requirements but every person must find both water stations in order to survive. At each food and water station there is a hole punch where you will punch your life ticket in the appropriate spot.

The class will be split into at least 3 groups. The groups that you must have are Herbivores, Omnivores, and Carnivores. **Additional roles that you can add are human hunters, natural disasters, and roving food stations. These roles are perfect for parents, teachers, or children with mobility issues.**

An Herbivore must find 6 different plant food stations and punch their life ticket with the hole punches at each station. They start with 5 Life bands

An Omnivore must find 8 food items, although they can get their food in two different ways, they can either find a plant food station or they can hunt herbivores. In order to hunt an herbivore, the omnivore must sneak up on them and tag them. If an herbivore is tagged they must take one of their life bands and give it to the omnivore. **This is the only time you are safe in the game** at any other time you can be tagged by another player and “killed.” Omnivores start with 4 life bands.

A Carnivore must get 10 food credits, but they only eat meat so they have to get all their food from the herbivores or omnivores. Just like the omnivores they must sneak up on their prey and tag them. Carnivores start with 2 life bands.

If you get all of your required food you are not done you still need to “survive” until the end of the game. You have survived if when time is up you have all of the food and water needed and still have at least one life band left.

If you are using a hunter they should be equipped with one or several throw able objects to “hunt” with. If a hunter hits an animal with the throw able then they take must give the hunter one life band.

If you are adding natural disasters to the game, you can choose to tell the students at the beginning of the game or let the additional challenges be a surprise to the students. If it is a surprise addition you might want to consider starting the carnivores out with an

extra life band. The natural disasters should be actual disasters that could happen such as tornado.

- Make sure to give exact boundaries to avoid confusion.
- The students can only give their own life bands when tagged, not ones they have collected.
- Tell the students that game will end with 3 long whistle blasts.
- Give the students a definite end location to gather at the end of the game.

Running the Activity (30 – 45 Minutes)

- After you have answered any final questions let the Herbivores start.
- Give the Herbivores 3 minutes to start and then release the Omnivores
- After 1 more minute let the Carnivores start.
- If using Natural Disasters and Hunters let them go after 5 minutes

Conclusion

Once the game has finished and everyone comes back have them count up their food and water resources, and then find out who survived.

Discussion questions

- What were some strategies that you used to survive?
- How was this realistic / unrealistic?
- What was difficult during this game?

Make sure to have the students help you to place everything back in the correct place in the box and dispose of used life tickets.

Quick Reference for Predator Prey Game

<u># People in group</u>	<u>12-14</u>	<u>15-20</u>	<u>24-30</u>	<u>40</u>	<u>50</u>
Herbivores- Yellow	7-8	9-12	12-16	22	28
Omnivores- Blue	3-4	4-5	6-10	12	15
Carnivores- Red	2	2-3	3-4	6	7