



Activity: Owl, Mouse, and Shrub Game

Grades: 5-6

Objective:

The purpose of this activity / game is to create a real-time visual of how predator and prey populations can be influenced by one another. Predator-prey relationships can be a complex topic that is hard to fully understand in some situations. This game helps to show direct effects of growing and shrinking population sizes of predators and their prey. It also highlights how the surrounding ecosystem may be impacted by these relationships.

Competencies Covered:

- Demonstrating understanding of predator-prey relationships.
- Exploring how ecosystems are interconnected.
- Identifying patterns and trends in population changes.
- Encouraging observation and critical thinking through gameplay

Materials:

- Pinnies / Coloured fabric scraps for the mice (used as tails)
- Pylons / cones
- Large open area / field

Set-up:

- Place a small circle of cones/pylons in the centre of the game space (**Owl players starting place**)
- Place a second ring of cones/pylons about 10ft away from the inner circle, note: ring can be larger/smaller depending on speed of the students. (**Mice players area**)
- Place a third ring of cones/pylons the same distance away from the second ring as the second ring is from the centre. (**Shrub players stand here**)

Directions / Game-play:

- All **owls** must begin within the **innermost circle**.
- All **mice** must begin inside the **second ring**.

- All **shrubs** stand on the line of the **outermost ring** with BOTH feet on the boundary.
- **Mice** goal = Hide under a shrub without being caught by an owl
- **Shrub** goal = Protect and hide only ONE mouse
- **Owl** goal = Catch as many mice as possible within the time limit
- The teacher will begin each round by calling out 'HUNT!'
- While mice run to shrubs for cover, owls attempt to catch them by pulling their tails. Shrubs hold out their arms like branches for the mice to hide beneath.
- After about 30-60 seconds, stop the round and adjust the roles as follows:
 - **Mice** that are caught become **owls**.
 - **Owls** that catch at least one **mouse**, remain **owls**.
 - **Owls** that DO NOT catch a **mouse**, become **shrubs**.
 - **Shrubs** that protected a **mouse** become **mice**.
 - **Shrubs** WITHOUT a **mouse**, remain **shrubs**.
- Play several rounds (5-10), recording the number of mice, shrubs, and owls at the beginning of each round.
- Afterwards, discuss the patterns and trends observed. For example:
 - What happens to the mouse population when there are too many owls?
 - What happens when there are lots of mice but few owls?
 - How do fewer shrubs affect mouse and owl populations in the following round?

Example / Diagram:

