

# The Bird Game

This outdoor game demonstrates the fragile, variable and dynamic nature of ecosystems

*Ecosystems describe a group of plants and animals that are in some way connected by the resources they require for survival. They also depend upon each other for their survival.*

*Ecosystems are specific habitats that behave as integrated units.*

## Introduction

Class splits into say 6 groups on oval with a cone at each group – cones approximately 10m apart in a rough circular formation.

Each group symbolizes a family of birds ie adults plus fledglings. One bird (symbolizing a chick) must stay at the nest/cone, whilst the other adult birds go out to forage for food strewn around the open space: either nectar (symbolized by large sprigs e.g. Hakea/wattle flowers); or seeds (she-oak cones, quandong seeds, banksia cones etc.); or insects, (symbolized by plastic toy insects or similar).

In addition one person symbolising a tree stands in the middle of the open space and begins casting out more 'food' for the birds to collect (as game is in progress, but beginning only from the third game onwards).

**First trial game:** (demonstrating an ideal world) adult birds have say 30 sec to collect as much "food" as possible and return it to the nest. If there are six groups, lay out at least 6 pieces of "food" per foraging bird. Each group to keep a running tally of how many items they have brought back to the nest. Team with the most items at the end of all the games is the winner.

**Second game:** lay out food again, but this time remove some pieces of food so there are say only five pieces but six birds seeking food. Swap roles as birds.

After the second game call students in briefly to debrief what is happening: ask them – "what happened?"

You could introduce and activate the "tree" variable after this game once you have asked them where the birds' food comes from.

**Third game:** set out the food again and introduce the first predator (a cat) who tries to tag the birds in their hunt for food. A tagged bird is a dead bird who must sit down and take no further part in that game. Birds are safe once they have returned to the "nest".

**Fourth game:** introduce a second predator (fox) as well as the cat.

**Fifth game (if time):** play with the variables e.g. increase the distance between groups by say 5 metres each time, and hence the distance to get to food, and/or increase/decrease the number of flowers/insects (food) so that not every bird will get any.

Teacher debriefs with the class at various intervals, asking them what is happening here when the variables change. Get them to verbalise what they are experiencing. Sample question: "what happens when there is not enough food?" "Why isn't there enough food?" "What happens to the baby honeyeaters if their parent is killed?"



**Other options:** introduce a bird of prey (hawk, falcon) as a third predator; allow students to have a safe haven by touching the tree en route (or play the game on the edge of the oval under some trees). "Birds that are in a tree are safer from predators."

### **Preparation**

One cone for each group's position on the oval is a good idea.

The predators could wear costumes e.g. cats could wear a cat's tail/cat mask/draw whiskers on their cheeks, and so on, to aid identification.

### **Questions for the class debrief**

The debrief is an integral part of the game.

Ask class:

- what is this game is showing them about life in the real/natural world?
- what happened when the birds had to travel further to get food?
- what happened when two predators were introduced? etc.

*Key words: competition, habitat, fragmented habitat, territory, predator, prey, energy needs, environmental stresses, interconnectedness, variables, in balance, out of balance, competition, tipping point*

