



***Dedicated  
to Reducing  
Pesticides***

## Unit 5 Section 1 Lesson 1: Nature's Bug Zappers

**Focus Areas:** Pest Control: Biological; Science, Language Arts, Math

**Focus Skills:** observing, listening to gather information, creative dramatics

### Objective

To recognize that nature provides natural predators to control overpopulation

### Essential Question

How does the natural world protect itself from overpopulation of insect pests?

### Essential Understanding

Nature provides many natural predators to control pest populations.

### Background

There are more than 4,800 different kinds of dragonflies. In fact, dragonflies are among the oldest winged insects that live on the Earth. They have been around for more than 300 million years. That means that they were inhabitants of the Earth long before dinosaurs roamed the land. Their ability to survive might be partially due to the fact that they are fabulous flyers. They can fly fast, hover like a helicopter, and even fly backward. They feed on midges, mosquitoes, flies, wasps, and butterflies. While they feed on many insects, they are also food for many other creatures such as birds and spiders.

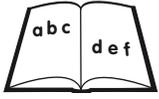


University of  
Connecticut  
College of Agriculture  
and Natural Resources  
Cooperative Extension System



## Unit 5 Section 1 Lesson 1: Nature's Bug Zappers

### Vocabulary



#### dragonfly

any of various large insects having a long slender body and two pairs of narrow, net-veined wings that are usually held outstretched while the insect is at rest

#### population

all living things inhabiting a specific area

### Logistics



**Time:** 30 minutes

**Group Size:** 2 to 30

**Space:** a classroom, carpeted area, or gym

### Materials



Helpful and Harmful Insects Picture Card Set \*

Handout 1 "Dragonflies vs. Mosquitoes" \*

Overhead 1 "Biodiversity Pie" \*

Izzy puppet \*

book *You Are A Dragonfly* by Judy Allen and Tudor Humphries \*

### Preparation



1. Prepare copies of Handout 1, "Dragonflies vs. Mosquitoes."
2. Gather materials from kit.
3. Preview **Background** and story.

### Activity

#### Introduction



1. Izzy shows Overhead 1, "Biodiversity Pie," of all creatures and explains that the pie represents all the creatures that live on the Earth.



## Unit 5 Section 1 Lesson 1: Nature's Bug Zappers

2. Izzy asks the children to speculate on:
  - a. Which piece of the pie shows how many people there are?
  - b. Which piece stands for the number of insects?
  
3. Izzy asks the children how some insects help us:
  - Pollinate flowers - bees
  - Beautiful to look at – butterflies
  - Provide food for birds and other animals - mosquitoes
  - Aerate the soil - ants
  
4. Izzy asks the children how some insects hurt us:
  - Bite/sting – bees/mosquitoes
  - Eat crops – beetles/grasshoppers
  - Cause disease – mosquitoes, cockroaches, fleas
  
5. Izzy explains that helpful insects play a big role in controlling and eating other bugs so that the world isn't overcrowded with insects. This makes them part of nature's plan called the food chain.

### Involvement

1. Read the book *You Are a Dragonfly*.
2. Read the story again, and have the group or various groups of children act out the life of the dragonfly.
  - Part I – Birth
  - Part II – Eating and Molting
  - Part III – Avoiding Predators
  - Part IV – Living on the Land
  - Part V – Dragonfly Hunting



## Unit 5 Section 1 Lesson 1: Nature's Bug Zappers

- Izzy says, "Mosquitoes bite to get your blood for their dinner. They also can carry certain diseases. Dragonflies are nature's mosquito bug zappers. When farmers spray pesticides they kill helpful insect hunters like dragonflies."

### Follow Up

Complete Handout 1, "Dragonflies vs. Mosquitoes" together or as individuals.

