

# Are You a Pest?

## Essential Questions:

*What is a pest?*

*What factors determine whether an organism is a pest?*

## Background:



A pest is a living thing that injures or annoys people or damages their property or environment. There are all sorts of pests: insects (grasshoppers, wasps, ants, cockroaches), diseases (fungi, bacteria, viruses), mammals (rats, stray dogs), reptiles (venomous snakes), birds (pigeons, seagulls) weeds (dandelions, corn in a soybean field) and invasive plants (kudzu, purple loosestrife, privet). There are many ways pests are controlled:

### Natural Methods of Pest Control

- **Climate:** Plants and animals live where the climate (temperature, rainfall) suits them.
- **Natural Enemies:** Everything is food for something else eventually. Many pests have natural predators.
- **Geographic Features:** Water and landforms such as mountains restrict the movement of animals and the dispersal of seeds.
- **Food Supply:** Numbers of animals decline if available food becomes scarce.

### Methods of Pest Control by Humans

- **Host Resistance:** Varieties of plants with disease resistance can be grown. Some plants have natural chemicals that ward off competitors and predators.
- **Biological:** Natural enemies of the pest can be introduced e.g. lady bug beetles eat aphids
- **Cultural:** Tilling the soil breaks up weed roots and turns weed seeds under. Healthier soil and plants are more resistant to pests.
- **Mechanical:** Fly swatter, mouse traps, pulling weeds
- **Sanitation:** Removal of debris from gardens and other areas reduces the chance of a reinfestation. Using pure seed can reduce the number of weeds e.g. grass seed uncontaminated with weed seed.
- **Chemical:** Herbicides and pesticides kill plant and animal pests but can also harm beneficial plants and animals in addition to potentially contaminating soil and water.

## Getting Ready:

Divide the class into groups of 3-4. The learners can discuss their definition of the term 'pest' and the organisms they consider pests.

## Procedure:

1. Ask learners: Have you ever seen an animal or insect in or around your home? Did you catch it? Was the animal a "pest?" Do you know what the word "pest" means? [Learners discuss their definition of the term "pest" and the organism they consider pests. If learners do not

**Location:** Indoors

**Objectives:** Learners will

- 1) explain that the term 'pest' is subjective.
- 2) Name three pest organisms that are found on many Georgia school sites.
- 3) what pests are on my school site?

**Skills:** communication, listening, analysis

**Supplies:**

- Eco-service worker ID cards
- pencil/pens
- chalkboard
- worksheet or blank paper

**Subjects:** language arts, science

**Time:** 30 minutes

mention any plants, ask “Can a weed be a pest?”] [Definition of pest: A living thing that injures or annoys people or damages their property or environment.]

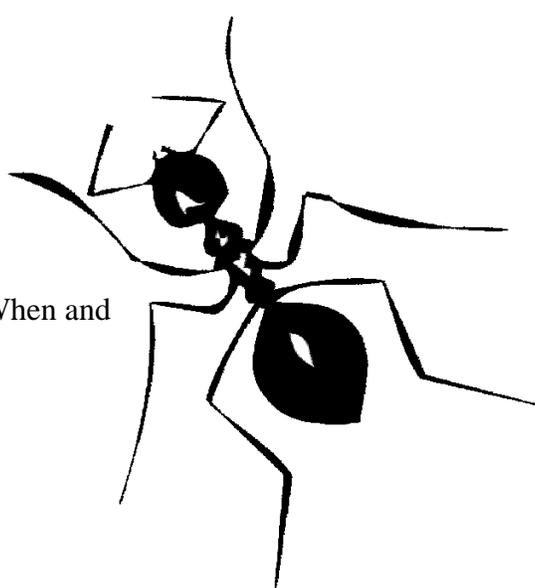
2. Ask: Should a rabbit be considered a pest? [Some learners will say no—that a rabbit can be a pet. Others might say yes—rabbits eat the plants in a garden.]
3. Tell learners that whether or not an organism is considered to be a pest depends on the situation, a person’s point of view. A lot of ‘pests’ are not so bothersome when they are in their natural environment. It is when they share an environment (natural or man-made) with humans that problems often exist.
4. Form groups of 3-4 learners. Use provided worksheet or have groups take a piece of paper and write the following at the top:

<u>Organism</u>	<u>Is a pest when:</u>	<u>Is not a pest when:</u>
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5. Learners will work 5-10 minutes in their groups to list names of organisms they think might be a pest. They will then list a time the organism might be a pest and also when it might not be a pest.
6. After time is called, have student groups share the names of the organisms they listed. Record the names on the board. Count the duplicate responses. Have learners tell when the organism would be a pest and when it would not.
7. Review the list of organisms with the class. Ask learners how many times when an organism was listed as a pest that humans were involved.
8. Discuss the times in which the organisms were listed as “not a pest.” Where these organisms in their natural environment?
9. Discuss with learners ways to control the pests listed on their sheet. Can the learners name any pesticides? Have any of them ever used Citronella candles (they contain citric oils that are natural pesticides) insect repellents, weed killer in the garden, laundry detergents that kill bacteria, bleach in homes and chlorine in pools, flea and tick sprays, powders, and pet collars, and repellents to keep deer, raccoons or deer away from your garden?
10. Use the Eco-services ID cards and show some to the learners. Ask learners whether the animal or plant is a pest or not. Possible cards that could be used include: ants, various beetles, mantids, mites, ticks, spiders, bees, wasps, flies, raccoon, mouse, aphids, fungi, cockroaches, birds and termites.

**Discussion/Assessment:**

- What pests do you have in your home?
- What pesticides do you use in the home?
- What defines an organism to be a pest?
- What pests do you have on your school site?
- What methods are used to control pests?
- Could humans be considered ‘pests’ to any other species? When and how?



# Are You a Pest?

Organism	Is a pest when:	Is not a pest when:

