

# What is a Pest?

A rabbit can make a wonderful pet, but can also cause problems in a garden by eating the lettuce. Should the rabbit be considered a **pest**? This activity is designed to bring up questions in a group setting and allow the participants to clarify what, when, and where a certain organism is or is not considered a pest and why.

**Suggested Level(s):**

K-6 (can be adapted for multiple levels)

**Subject(s):**

Environment & Ecology, Math, Arts & Humanities

**Standards:**

*Environment & Ecology*

4.5: Integrated Pest Management (IPM)

*Math*

2.2: Computation and Estimation

*Arts & Humanities*

9.1: Production, Performance & Exhibition of Dance, Music, Theatre, & Visual Arts

**Skills:**

Critical thinking, Integrating, Discussing, Presenting, Comparing and Contrasting, Classifying

**Technology Connection:**

Digital camera, software & printer to print pictures from camera.

**Materials:**

Pencil/Pen  
Paper  
Overhead or white board

**Time Consideration:**

Preparation: 5-10 minutes  
Activity: 30-50 minutes

**Objective(s):**

Students will

- understand and be able to explain that “pest” is a human construct rather than a “natural” category
- explore the wide range of organisms that can potentially be “pests”
- compare and contrast the different roles organisms have besides pestering humans
- discuss varying points of view on when a certain organism is and is not a pest
- describe how management of a particular organism will depend upon a person’s perspective

**Assessment Opportunities:**

- Either assign or have students choose an organism from the class list of pests. Instruct students draw two detailed pictures: the first picture with the organism in an environment where it would be considered a pest and the second picture with the organism in an environment where it is not considered a pest. Using the completed drawings answer the following questions in their own words:
  - What are the similarities between the two pictures?
  - What are the differences between the two pictures?
  - Do you consider this organism a pest? Why and/or why not?
  - How would you deal with this pest if it became a problem in your environment?

**Background:**

Everyone knows what a pest is, right? Or do they? Whether or not an organism is considered to be a pest depends on the situation, a person’s point of view and other “non-scientific” factors. Consider this statement. If there were no humans on earth, there would be no “pests”. Or would there? Differing opinions about pest status often leads to controversy in private and public life about what to do about the “pest problem” at hand.

**Getting Ready:**

All students should have a writing implement and paper. An overhead or white board can be used to record class information.

### **Doing the Activity:**

1. Form **small groups of 4-5 students**, each with a piece of paper. Write at the top of the paper:

<u>Organism</u>	<u>Is a pest when:</u>	<u>Is not a pest when:</u>
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2. Students silently spend 5-10 minutes writing down the name of any organism they think might be a pest in the left-hand column. Write when or where it is a pest under the “Pest” column. List a situation where or when that SAME organism is NOT a pest in the far right-hand column.

<u>Organism</u>	<u>Is a pest when:</u>	<u>Is not a pest when:</u>
Raccoon	in the garbage can	in the woods

3. Within each group, compare notes by going around the table and each student reading his/her answers.

**The first student to read his/her answers will be the group recorder and will add each new organism mentioned to his/her list to create a master list.** The group recorder will also note how many times the same organism(s) was mentioned (e.g. 4 out of 5 students in the group said mosquitoes).

4. Choose a **reporter** for each group to present the group’s list of organisms to the class. Have a student write on the board all the organisms mentioned by the class and count the duplicate responses (e.g. 3 out of 6 groups mentioned house flies). If there were different opinions within a group about whether a specific organism is considered a pest, have students present the different perspectives to the class.

5. Examine the “pest” column listing all the organisms mentioned by the class. How many times was each organism mentioned? Are these organisms typically referred to as annoying by humans?

6. Discuss the situations in which the organisms were listed as a “pest.” What do these situations have in common? Are they human endeavors of some sort or spoiling something that humans’ value?

7. Discuss the situations in which the organisms were listed as “not a pest.” What do these situations have in common? Are they a role played by the species in the natural environment and/or their use as food, pleasure or research purposes for humans?

8. Brainstorm as a class:

- Should potential pests be treated the same wherever they occur? Why or why not?
- Is there a way we can now define when an organism is and is not a pest? How?

### **Enrichment Activities:**

1. Using the class information on the board, have students:

- Rank the “Top five pests according to Mr./Ms. Smith’s class”
- Calculate the percent of the time specific pests were mentioned (e.g. 3 out of 6 groups mentioned “ants” as a pest = 50 percent of the groups mentioned “ants” as a pest)
- Calculate how many different types of species are represented in the list (mammals, birds, plants, reptiles, etc...)

2. Have each student write the name of one organism they consider to be a “pest” on a half of a 3x5 index card for as many pest organisms they can think of. In small groups instruct students to classify the various organisms by similarities, habitat, **biome**, **ecosystem**, or by **taxonomy**, etc. **Science & Technology Standard 3.3 Biological Sciences**

3. Have students use a digital camera to take pictures of pest organisms they find in and around their school and home environments. Use the photographs to create a bulletin board showing pest species in different environments. On the bulletin board, divide the pictures showing in which environments an organism is considered a pest and in which ones they are not.

### **For Younger Students:**

1. Instead of writing the names of pest organisms on paper, turn this into a class discussion. Ask students to name pest organisms and when they may not be considered pests. Write the answers on the board. Choose several of the organisms listed to learn more about. Discuss the questions listed under Assessment Opportunities. Have students draw and color pictures of their favorite organisms and decide if they consider them to be pests.

**Reading Connection:** Depending on how it is used in the classroom, the following book can address the PA Reading, Writing, Speaking, and Listening Standards 1.1: Learning to Read Independently and Standard 1.2: Reading Critically in All Content Areas.

Pallotta, Jerry. *The Icky Bug Alphabet Book*. Charlesbridge Publishing. 1986.  
A book using insects and other arthropods to convey the letters of the alphabet. Organisms included may or may not be described as pest species. Grades K-3. ISBN: 0-88106-450-5