

***Dedicated
to Reducing
Pesticides***

Unit 2 Lesson 1: Plan the Work; Work the Plan

Focus Areas: IPM Basics; Science, Language Arts

Focus Skills: researching, thinking critically, reporting orally

Objectives

- To understand the steps involved in Integrated Pest Management (IPM)
- To recognize that there are alternatives to chemical pest controls

Essential Questions

- What is IPM?
- How can I use IPM?

Essential Understandings

- IPM is a program designed to learn about pests and reduce the use of chemicals to control pests – insects, weeds, and diseases.
- IPM combines critical and creative thinking with the scientific method to control plant and animal pests.

Background

Attempting to manage pests that threatened crops began with the first farmers. During the ensuing centuries, efforts expanded to include those plants and animals that pestered or plagued human populations, domestic animals, and decorative plants. Methods used to control perceived pests changed over time as science and technology developed new ways to combat unwanted organisms.

Beginning in the early 1900s and continuing until the 1960s, the method of choice for pest control was chemical! However, as evidence mounted of environmental damage due to the use of pesticides, new methods were sought. In the last three decades, Integrated Pest Management, or



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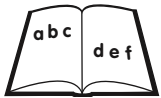


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IPM, has offered a viable solution to the overuse of chemicals for pest control.

IPM is a scientific, step-by-step approach to pest management. These steps include identifying the offending organism, understanding the targeted pest's biology, and determining the size of the pest population. "Know your enemy" is the first step to ensuring that correct actions can be taken at the correct time. The actions taken are a combination of management tactics that are evaluated and judged as most likely to be both safe and effective, such as mechanical or biological control. Mechanical control is the use of tools, machines, or other equipment that aid in pest management. Biological control is the use of natural enemies, such as ladybugs or bats, to control pest populations. Prevention and early intervention are emphasized. Chemical applications are used sparingly.

Vocabulary



identify	to determine what something is
IPM	Integrated Pest Management. A combination of scientific methods used to control pests
method	a way of doing something
offspring	the young that are produced by a plant or animal
pest	something that threatens or bothers you or your environment
population	the number of plants or animals living in a certain area



Logistics

Time: two 30-minute sessions

Group Size: 5 to 30

Space: an area for comfortable seating and writing



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Materials

Supplement 1 “Know Your Enemy!” *
books on the various pests illustrated in
Supplement 1 “Know Your Enemy!”
Izzy puppet *
Handout 1 “Know Your Enemy!” *
large writing surface to be viewed by group
The *IPM Song* *

* single copy provided



Preparation



1. Obtain non-fiction materials on pests illustrated on Supplement 1, “Know Your Enemy!”
2. Prepare “Know Your Enemy!” cards (see Supplement 1).
3. Prepare copies of Handout 1, “Know Your Enemy!”

Activity



Introduction

1. Introduce Izzy to the group.
 - a. Print his name, Izzy Praying Mantis on the board.
 - b. Underline the **I**, **P**, and **M**.
 - c. As you reprint the three letters beneath Izzy’s name, have Izzy tell the children that his initials stand for Integrated Pest Management and that he’s the mascot of this safe way to manage pests.
2. Izzy asks volunteers to say a word that comes to mind when they hear the word pest.
3. Print the words on the board and have the group discuss what the words have in common.



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4. Izzy invites the children to become IPM experts.
5. Izzy points to the letter “**I**” and prints **identify** beside it, explaining to the group that knowing as much about the pest as possible is the first step in managing it: “KNOW YOUR ENEMY!”
6. Izzy points to the “**P**” and prints **population** beside it, explaining that the number of pests present will determine if action must be taken immediately. Many times pests will produce **offspring** in large numbers. “WHERE THERE’S ONE, THERE’S MORE!”
7. Izzy points to the letter “**M**” and prints **method** beside it, explaining that there are various methods to manage pests that are safer than chemicals. “PLAN THE WORK; WORK THE PLAN!”
8. Izzy asks the children to give examples of non-chemical ways to control pests. (swatting mosquitoes and flies, putting screens in windows, keeping garbage in covered containers)

Involvement

1. Distribute the pest cards from Supplement 1 “Know Your Enemy!”, one card per child.
2. Have the children join with others who have the same “pest” card.
3. Distribute Handout 1 “Know Your Enemy!”, one per cooperative team.
4. Allow time for the teams to complete their research using books and the Internet.
5. Discuss the results of the children’s research.

Follow Up

1. Distribute copies of the *IPM Song*.
2. Izzy leads the children in singing the *IPM Song*.

Assessment

1. Grade the group’s research using the rubric.
2. Evaluate each child’s cooperative effort.

