Focus Areas: IPM; Science, Language Arts
Focus Skills: summarizing, understanding the main idea, analyzing printed material, understanding vocabulary in context, applying scientific knowledge to practical solutions

Objectives

• To illustrate an understanding of IPM (Integrated Pest Management)
• To recognize the need for reduction of chemical applications in pest management

Essential Questions

• What is IPM?
• What alternate methods to chemical pest management does IPM use?

Essential Understandings

• IPM is a scientific approach to pest management in which multiple approaches to managing pest populations are used.
• IPM seeks to understand a pest's lifestyle and determine the pest population before taking action.
• IPM applies the most environmentally sound methods to pest management.

Background

IPM offers a scientific approach as well as an alternative to indiscriminate chemical use in the management of pests. Combining identification and understanding of the pest with a variety of environmentally friendly methods of management, IPM seeks to reduce the use of potentially dangerous chemicals among municipalities, families, and the farming community.
In a series of steps the pest is identified, its population is determined, and choices of action are decided. While chemicals are not universally condemned, they are not the first choice of control. Furthermore, when chemical control is deemed necessary, careful attention is given to toxicity, the amount applied, and safety precautions.

**Vocabulary**

**biological control** the use of natural enemies to control pest populations (Examples: ladybugs, cats)

**chemical control** the use of chemical powders, pellets, or sprays to control pests

**cultural control** keeping areas and ourselves pest unfriendly (Examples: garbage collection, hand washing)

**IPM** Integrated Pest Management, a method that seeks to manage pests in the most environmentally friendly way

**mechanical control** tools, machines, or equipment that aid in pest management (Examples: screens, fences)

**pesticides** natural or synthetic compounds used to control pests

**toxin** a material that is dangerous to the health of living things

**Logistics**

**Time:** three 30 minute sessions  
**Group Size:** 5 to 30  
**Space:** an area with comfortable seating


# Unit 2 Lesson 1: Before You Spray, Try Another Way

## Materials
- Handout 1 “Izzy’s Message” (poem/song)*
- Handout 2 Questions on “Izzy's Message” *
- Answer Key for Handout 2 *
- Handout 3 “IPM Cinquain” *
- chart paper or white/black board

* single copy provided

## Preparation

1. Prepare copies of Handouts 1, 2, and 3.
2. Read the Background.

## Activity

**Challenge**: Determine the steps of IPM.

(Display for group viewing)

## Introduction

1. Print the letter “P” on the board or chart paper, and say “= pest”. Ask the question, “What is a pest?” Invite the children to give examples, and list responses for group viewing.
2. Add the letter “I” before the “P”. Tell the children that they have just identified pests in their lives.
3. Tell the children, “Identifying the pest is the first step in a scientific approach to pest management.” Add “M” after the “P” to create “IPM”.
4. Tell the children that IPM stands for Integrated Pest Management.
5. Ask a volunteer to look up the word integrate in a dictionary and discuss how integrate would apply to the management of pests. (combining different ways to control pests)
6. List and define the various methods used in IPM. (see Vocabulary)
7. Reexamine the list generated in Step #1 and have the children suggest ways to control these pests. List them for group viewing and determine which IPM method (see Step #6) each suggestion would be.

Involvement

1. Tell the children that they are going to read and analyze information on IPM in a different way.
2. Distribute Handout 1, “Izzy’s Message” and read or sing the stanzas/verses.
3. Distribute Handout 2, “Questions on Izzy’s Message” and allow the children time to complete.
4. Collect the answer sheets for Handout 2 to evaluate the children’s responses. Do not collect Handout 1.
5. Discuss the answers. (You may want to return Handout 2 as needed to the children who volunteer to answer.)

Follow Up

Distribute Handout 3, “IPM Cinquain” and review the assignment with the group. Allow time for the children to create cinquains.

Assessment

Evaluate answers to Handout 2, using points given.

Answer Key

Provided within lesson as needed or on included Answer Key for Handout 2.
Follow Through

Read and display the poems that resulted from the Follow Up activity.

Resources

Suggested Reading

articles on IPM

Internet Websites

IPM Internet sites, including those listed in the Introduction of this curriculum kit.
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Notes
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