Unit 2 Lesson 2: Beauty Has Its Price

Focus Areas: Pest Management; Science  
Focus Skills: observing, making decisions, critical thinking

Objective

To understand that the demand for “pretty” produce results in the use of chemical control

Essential Question

Why do people use chemicals to control pests?

Essential Understanding

Demand for perfect looking food crops leads to the use of chemicals to control pests.

Background

The use of chemicals to control pests has a long history, but it wasn’t until the late 1940s that chemicals became the control method of choice. New synthetic products replaced the less effective compounds. Farmers and homeowners alike hailed them as the ultimate answer to their pest problems. This trend continued for two decades! In the 1960s and 1970s, however, many people began to worry about what these chemical controls, many of them poisonous, were doing to plants, animals, our air, soil, and water. A program was started to urge farmers, homeowners, and municipalities to use a combination of methods to control pests rather than relying solely on chemical solutions.

Integrated Pest Management (IPM) uses the monitoring of pest populations and other environmentally friendly methods to manage pest problems. The program is growing in popularity, and several states have mandated IPM education in their schools.
Unit 2 Lesson 2: Beauty Has Its Price

Vocabulary

disease
- a sickness

food crop
- something grown for humans or animals to eat

organic
- a product grown without using synthetic fertilizers or pesticides

pest
- a living plant or animal that shows up where it's unwanted

poison
- something that hurts a plant or animal through chemical action

Logistics

Time: 30 minutes

Group Size: 5 to 30

Space: an area for comfortable seating

Materials

Izzy puppet *

one apple per student or apple juice

a collection of damaged apples

a few IPM grown apples (any local apple orchard in Connecticut that uses IPM)

Snow White

* single copy provided

Preparation

Collect apples with a less than perfect appearance. Grocery stores and farm stands will sell you “seconds” at a reduced price. The fruit should exhibit a variety of imperfections from minor to serious. Purchase apples or apple juice to serve the students at the end of the lesson.

Note: Organic fruit or juice will help make the point of the lesson.
Activity

Introduction

1. Read the portion of *Snow White* in which the witch offers the poison apple to Snow White.

2. Ask the children:
   “Why did the apple tempt Snow White?” (its appearance)
   “What didn’t Snow White know about the apple?” (It was poison.)
Discuss the meaning of the word **POISON**.

3. Explain that some farmers spray poisons on their apples to kill pests so the apples will look pretty.

4. Over time, these poisons wear off or are removed when the fruit is washed before eating it.

5. Ask what Snow White could have done to avoid getting sick. (not taken the apple, washed the apple before she ate it)

6. Ask why Snow White should really have refused the apple. (Don’t accept food from strangers.)

Involvement

1. Show the children the apple samples and allow them to choose one apiece.

2. Discuss why they chose the apples they did. Discuss what a farmer must do to produce “pretty” apples. (prevent pests)

3. Ask how some farmers prevent pests from hurting their crops. (They spray chemicals to kill the pests.)

4. Ask why farmers might want to spray poisons on their apples. (so they’ll look pretty and people will buy them)
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Follow Up

1. Make applesauce using the damaged fruit.

2. Generate a list of other apple products that can be made from less than perfect fruit.

3. Visit an apple orchard to pick apples.

4. Explain that although organic foods may cost more to grow and cost more to buy, some people think the extra money spent is worth it.

5. Add **ORGANIC** to the children’s weekly spelling list.

6. Ask the children to look for the word “**organic**” on food products the next time they are in a grocery store.

7. Print IPM on the board. Say it.

8. Explain that if a farmer uses IPM, chemicals are only used when no other way controls pests.

9. Show the children samples of apples grown using IPM techniques. Poll them to determine whether they would be satisfied with these fruits.