



Build Your Own Insect Trap

Introduction

Day 1

Lesson Plan



BUILD YOUR OWN INSECT TRAP



DESCRIPTION

This lesson can be used as an introduction to insects or as an assessment about insects at the end of the unit. Students will design their own insect traps to collect an unknown insect, in the same way that entomologists collect the insects they study.



STUDENT OUTCOMES/OBJECTIVES

- Students will be able to ask a testable question.
- Students will be able to explain the relationship between insect behavior and insect trapping techniques.



STANDARDS

Benchmark 2

- Explain the relationship between animal behavior and species survival.
- Describe the living and nonliving resources in a specific habitat and the adaptations of organisms to that habitat.



TIME ESTIMATE

One 50-minute class period



MATERIALS (FOR 30 STUDENTS)

- White paper (40 sheets)
- Yellow paper (1 ream)
- Construction paper (1 pack, a variety of colors)
- Plastic cups (15 clear, 15 yellow, and 15 white)
- String (1 ball)
- Plastic plates (15 yellow and 15 white)
- Popsicle sticks (1 large box)
- Masking tape (2 rolls)
- Straws (75)
- Scissors—sharp but inexpensive (3 pairs)
- Q-tips (1 box)
- Cotton balls (1 bag)
- Soda pop
- Dry beans (a few ounces)
- Markers (4 packs)



WORKSHEETS

None



VOCABULARY

Entomologist—A scientist who studies insects

Insect trap—An object used to catch insects

Visual cues that attract insects—Colors or shapes of objects that attract insects

Odor cues that attract insects—Smells or scents that attract insects



BACKGROUND INFORMATION

Students should have an understanding of insects if the lesson is being used as an assessment. If the lesson is used as an introduction, a little background knowledge about insects is necessary.



LESSON PLAN

Build Your Own Insect Trap (50-minute period)



EXTENSIONS/RESOURCES

None

LESSON PLAN

BUILD YOUR OWN INSECT TRAP



Preparation

Place supplies on a table at the front or back of the classroom.

Note: Italicized words are potential script for the teacher.

Introduction (2 minutes)

- *A new insect has been sighted in the neighborhood.*
- *Farmers and homeowners are concerned that the insect might be damaging their crops or garden plants.*
- *Very little is known about the biology of this insect, and entomologists would like to catch as many as possible so that they can study them.*
- *Entomologists prefer to have the insect captured alive.*
- *They need your help in catching as many insects as possible.*
- *You will be designing and building a trap to catch this insect alive.*

Questions for brainstorming about insects (3 minutes)

What would you like to know about the insect before you design your trap?

The following questions are likely to be asked by students. The answer follows each question. Write the answers on the board as questions are asked.

If a student asks a question for which the answer is not provided, let him/her know that the answer is not known, and that this would be a good research question.

If students do not ask the questions below, prompt them to make sure these facts are covered.

Does the insect walk or fly?

It flies.

Does the insect fly during the day or night?

It flies during the day.

Is it attracted to any color?

It is attracted to yellow. (This is a visual cue.)

Is it attracted to any scent (odor)?

It is attracted to the scent of beans (protein) and soda pop. (These are odor cues.)

How big is the insect?

It is similar in size to a yellow jacket.



Go over procedures (3 minutes)

A variety of supplies are available for building the trap. (Hold up each item as you go over it.)

- Plastic cups (yellow, white, clear)
- Paper (yellow, white, construction)
- Tape
- String
- Plastic plates (yellow and white)
- Beans (protein)
- Soda pop
- Markers, scissors
- Cotton balls, Q-tips
- Popsicle sticks
- Straws



Steps (write on the board)

1. Plan/Design your trap.
2. Gather supplies.
3. Build the trap.
4. Present the trap to the class and explain features that will help trap the insects.

Divide the class into groups of two or three students (2 minutes)

Plan/Design your trap (5 minutes)

Gather supplies and build the trap (20 minutes)

- *Send one person from your group to collect supplies for the team.*
- *Get only the supplies you need.*

Present the trap (10 minutes)

Ask for volunteers (as many as time permits).

Cleanup (5 minutes)

Followup lesson

If students are interested, the traps can be placed outdoors to see what insects are trapped.

