

Name \_\_\_\_\_

Period \_\_\_\_\_ Date \_\_\_\_\_

# MILKWEED-BUG OBSERVATIONS

**Part 1:** Milkweed bugs are insects. Observe them carefully, then answer the questions and make accurate illustrations of the bugs.

1. Describe in detail the structures milkweed bugs use to get from place to place.

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2. Describe in detail how milkweed bugs get information about their environment.

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3. Describe the milkweed bug's mouth.

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**Part 2:** Milkweed bugs do not all have the same markings. Observe how they are different and draw accurate pictures of the two different patterns.

**Pattern 1**

Back side	Belly side

**Pattern 2**

Back side	Belly side

# A HABITAT FOR MILKWEED BUGS (1 of 3)

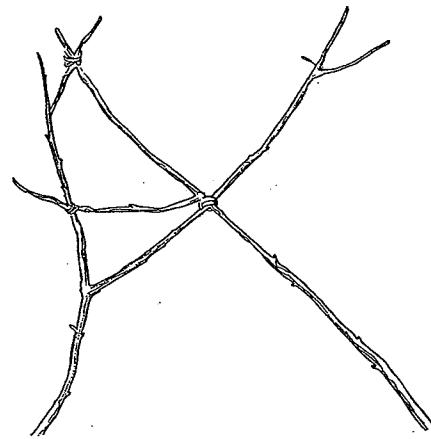
Milkweed bugs, like all living things, need a supportive environment in which to live. The environment that provides for all the needs of an organism is its **habitat**.

There are four primary components that every terrestrial organism must have in its habitat in order to survive: air, water, food, and space.

A simple plastic bag can become a suitable habitat for milkweed bugs. Follow these directions.

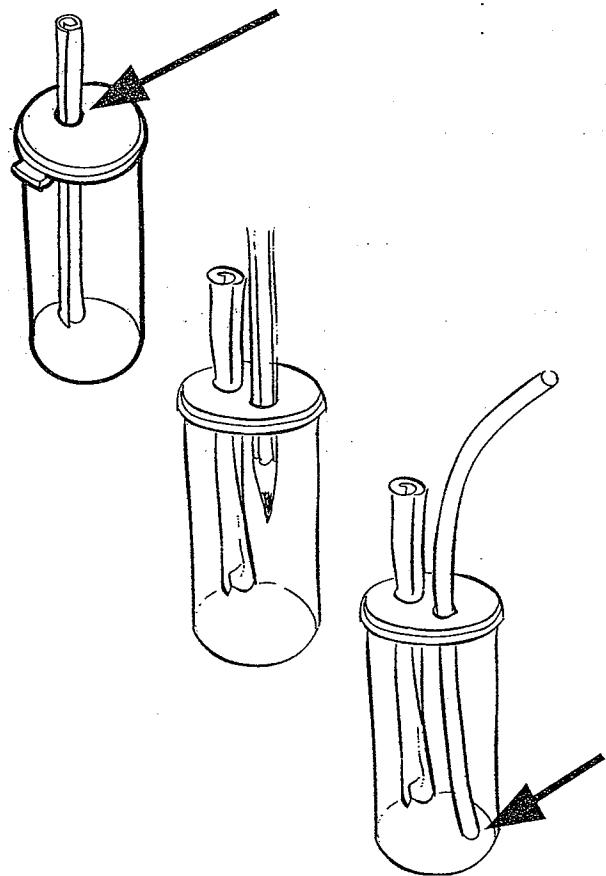
## Task 1: Assemble the twig structure

- Find 3–4 thin twigs 20–30 cm long.
- Study the illustration of a finished habitat bag (in task 6). Use rubber bands to assemble the twigs into a climbing structure.
- Make sure the structure will fit inside a 4-liter bag, is fairly flat, and will support the food bundles and polyester wool high above the water fountain.
- Label the bag with the group number.



## Task 2: Assemble a water fountain

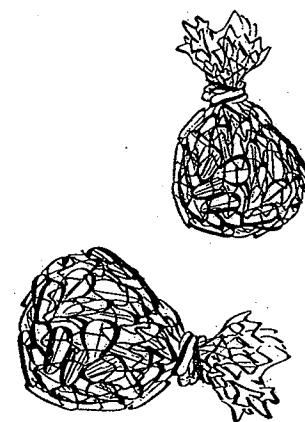
- Remove the cap from a vial. Use the hole punch to make a hole near the center of the cap.
- Roll a 10-cm square of paper towel into a tight cylinder and shove it through the hole to act as a wick. The part inside the vial should reach to the bottom of the vial.
- Snap the cap on the vial. Use a sharp standard pencil to carefully poke a second hole in the vial cap. (Don't use the hole punch—the hole will be too big.) Twist the pencil a bit as you push it through the cap.
- Push the flexible tubing through the second hole until the end of the tubing is on the bottom of the vial. Store the fountain in the bag.



# A HABITAT FOR MILKWEED BUGS (2 of 3)

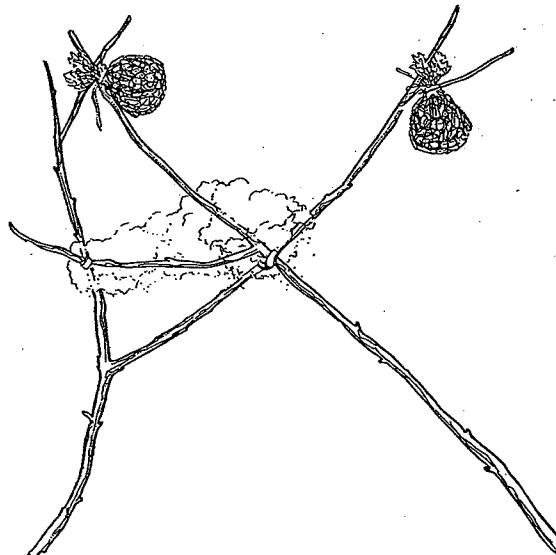
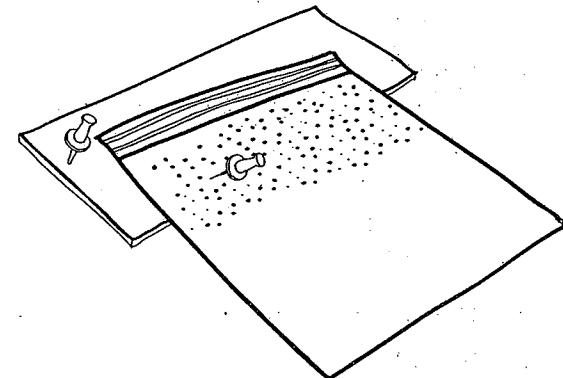
## Task 3: Prepare food bundles

- a. Count out about 100 shelled sunflower seeds.
- b. Put about half of them in the center of a square of netting.
- c. Enclose the seeds in the netting. Pull the netting around tightly to make a ball of seeds.
- d. Use a rubber band to hold the bundle shut. Wrap the rubber band around the ends of the netting many times.
- e. Repeat the process with the rest of the seeds to make a second food bundle.
- f. Use a loop of the rubber band to hang each food bundle on a twig high in the habitat.
- g. Put everything in the bag.



## Task 4: Add ventilation and polyester wool

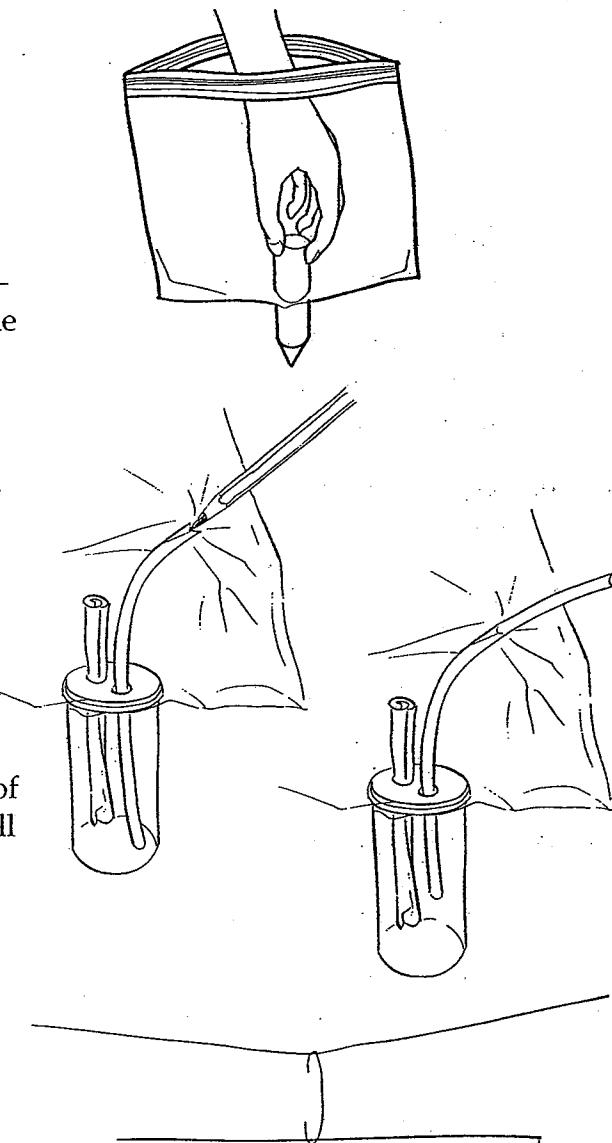
- a. Take everything out of the bag.
- b. Lay the upper third of the bag on a piece of cardboard.
- c. Use a pushpin to punch 100–200 holes in the upper third of the bag.
- d. Take a wad of polyester wool about the size of a walnut. Stretch it out a bit.
- e. Connect ends of the stretched polyester wool between the twigs to provide a place for bugs to hide.
- f. Put everything in the bag.



# A HABITAT FOR MILKWEED BUGS (3 of 3)

## Task 5: Install the water fountain

- a. Take everything out of the bag. Run the pointed dowel through the center of the bottom of the zip bag. Pull the dowel all the way through the bag.
- b. Push the water-fountain vial through the hole in the bottom of the bag from the inside. The job may be a bit of a struggle—you must stretch the plastic as you force the vial through the hole. Push hard and slowly—the plastic will yield without tearing.
- c. Rotate the vial so that the upper end of the tubing is against the inside of the bag. Make sure the end of the tubing is on the bottom of the vial.
- d. Push the sharp pencil point through the side of the bag into the open end of the flexible tube.
- e. Push the end of the tube through the side of the bag. Hold the vial in one hand and pull up on the tube to raise it several centimeters from the bottom of the vial. This will ensure that enough of the tubing extends outside the bag.
- f. Return the twig structure with its food bundles and wool to the bag. Zip it shut.



## Task 6: Complete the habitat

- a. Open a large paper clip into a C hook.
- b. Find the location at the top edge of the bag (above the zip) that allows the bag to hang level. Use a pushpin to poke a hole through the bag. Insert the paper-clip hook.
- c. Hang the bag where your teacher has arranged to display the habitats.
- d. Use a syringe to *slowly* fill the water fountain through the tube that extends outside the habitat bag.

