

INSECT COLLECTING INSTRUCTIONS

5th GRADE SCIENCE INSECT PROJECT

We are all interested in living things, for we like to see their actions and know how they live. That is the reason the zoos are visited by thousands of men, women, and children every year. They wish to learn about the cunning things which Mr. Bear does, and they are interested in the fierce appearance of the lions and tigers. Everyone also admires the showy colors of parrots and peacocks.

There is a more wonderful collection of animals than you ever saw in a zoo right in your backyard or in the field next to your home, or anywhere in the outdoors. It is true, the animals are not as large as the elephant, nor are they dressed in feathers like the birds from the Tropics, but they are more interesting than the growling and snorting beasts in the zoo, and their colors are much more showy than those of the birds. The parade of these animals is always going by! You can see them in summer and fall, during the daytime or at night, and you need not pay admission to see them. All you need to do is to keep your eyes open and do a little exploring. The animals I speak of are the insects, moths, and butterflies!

Nowhere will you see more brilliant colors than on the painted wings of moths and butterflies. Nowhere can you see more shiny, glittering armor than on some of the beetles which fly through the air or flit from flower to flower. Whether you like to see quiet, peaceful, tiny animals, among the insects you can find them. If you look for the fierce and war-like creatures that make the shivers up and down your back, among the insects you can find them.

Assignment: How exciting - - to think you have a zoo in your backyard! The first unit that you will study in science in the fall is entomology. This is a study of God's insects and includes preparing an insect collection. If you collect most of your insects in the summer when they are plentiful, then you will feel less stressed in the fall. Instructions on how to identify the insects and prepare them for your collection are included in this letter, but we will be learning more as school begins.

<u>Supplies:</u>	<u>What is an insect:</u>	<u>How many insects:</u>	<u>Type of insects:</u>
*net * collection container with lid or plastic bag for freezer *rubbing alcohol or fingernail polish remover, cotton ball (jar killing method) *pins for mounting *foam or cardboard for mounting *storage container *labels	The class Insecta, or insects, are the Arthropoda that have three pairs of legs, a segmented body divided into three regions (head, thorax, and abdomen), one pair of antennae and, usually, wings.	Your collection should include at least 12 15 different insects.	The collection must include insects from a minimum of 8 different Orders. A sheet of the Orders has been included.

“Sleeping Instructions”

Method 1: Use rubbing alcohol or fingernail polish remover in the bottom of the jar & cotton balls (absorbent material)

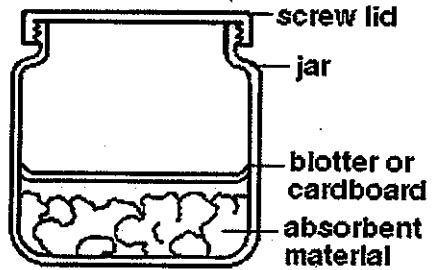
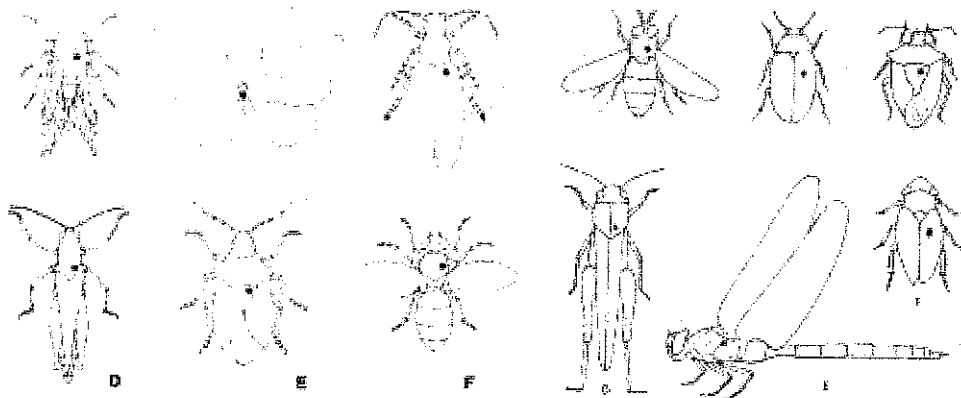


Figure 1. Killing jar

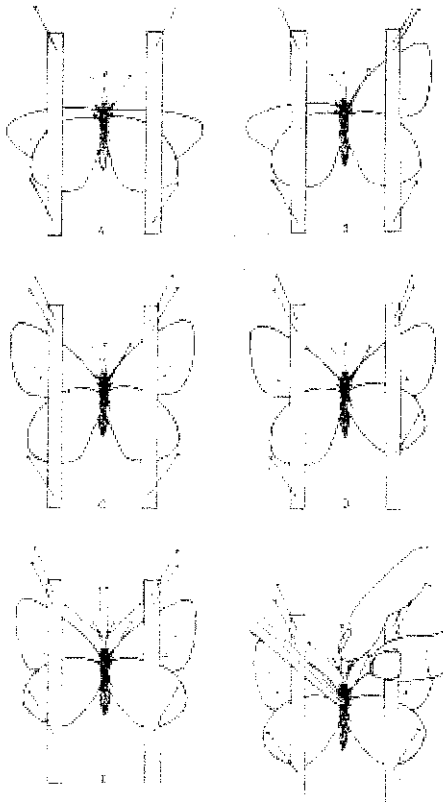
Method 2: This is a simple and efficient method that does not require any chemicals. In fact it is the best one to use whenever possible. Just put the specimen in the freezer for at least three days. Ideally, you should use one container for each insect. It is better to keep insects in the freezer longer than to get an unpleasant surprise if the insect you are pinning starts moving!

Pinning:

The correct way to pin various orders of insects is shown below. Note that the pin is usually just slightly to the right of the midline of the insect (second segment of the thorax).



The location of the black spots show the location of the pin



Hints for pinning butterflies/moths:

- Cut some narrow strips of paper and lay them over the wings.
- Pin them in place as shown. Remove the other pins that are through the wings.
- The pins holding the paper strips in place should not go through the wings but should be close to them to keep enough pressure on the wings to prevent their slipping out of place.
- Paper that is too thin will not give enough pressure on the wings. If the abdomen tends to sag, it can be propped up with pins until it dries.
- You can also use pins to keep the antennae in place while the specimen dries.
- Depending on the moisture in the air, the specimen should remain on the board from four to eight days.

Display:

You can display your insect collection in Schmidt boxes or similar insect storage boxes available at biological supply companies. Cigar boxes and small cardboard boxes may be used but only for short-term storage (carpet beetles and other scavenging insects can get into these boxes and destroy specimens). Cut out a piece of corrugated cardboard or styrofoam the same size as the bottom of the box to make it easier to place the specimens in the box. (There are a limited number of pieces of Styrofoam at school for use.)

Identification & Labeling:

Each insect in the collection must be identified and labeled. Use insect field guides from the library or school, and there are many websites to help correctly identify. The Insect Order worksheet will also be helpful when looking for different types of insects.

The following is a label example you can follow as a guide. It is best to have the information typed as it is easier to read.

Order: Orthoptera
 Species: Field Cricket
 Location: Grandma Lizard's backyard, Rock Valley, IA, 51247
 Date: July 29, 2017
 Collector: Mr. Lizard