

Take a Look at Insects

Wyoming Science

Objectives:

- Students will predict insect characteristics and learn what all insects have in common.

Activity Procedure:

1. Ask the students what an insect is. Write down their descriptions, and draw an insect using their suggestions. As the class members respond, question them further to elicit more specific responses. (For example, if someone suggests that insects have wings, ask “How many? Where are they located?”)
2. Although most children have a fairly good image of what an insect is, they may be confused about some specifics, such as whether all insects have wings (they don’t) or whether some creatures typically thought of as creepy crawlers, such as spiders and centipedes, are insects or not (they aren’t).
3. After you have created a representative picture of the students’ predicted insect features, stand back and look at the picture. It may look pretty wild. Ask students if they have ever seen an insect that looks like the picture. Let students know that they will participate in an insect survey and conduct research to determine which of their predictions are accurate.
4. Discuss with the students what a prediction is. The insect you draw represents the students’ predictions of what an insect looks like, based on what they already know.

Insect Walk

Before this activity, review the safety principles with the students. They should not try to pick up or catch insects that are unfamiliar or known to be harmful. Demonstrate how to use tweezers and gloves, or how to place a bottle over an insect without touching it.

Organize the students into small work groups with four to five students each. Take them outside and ask each group to look for insects in a different area. The intent is not to catch every insect in the area, but to gather a sample of common insects against which to test their predictions. If more adult volunteers are available, it is helpful to have one adult with each group. This should take about 20 minutes.



Standards

Science

Life Systems:

1.2, 1.4, 1.5, 1.6

Science As Inquiry:

2.1, 2.2, 2.3

Materials

- 2-inch clear tape
- Newspaper
- Miscellaneous art supplies (markers, yarn, glitter, chenille wire, tissue, etc.)
- Insect Predictions Chart
- Insect Diagram



Estimated Time

45 Minutes

Grades 5-6

vocabulary:

- *predictions*
- *characteristics*
- *antenna*
- *thorax*
- *abdomen*
- *simple eye*
- *compound eye*
- *exoskeleton*

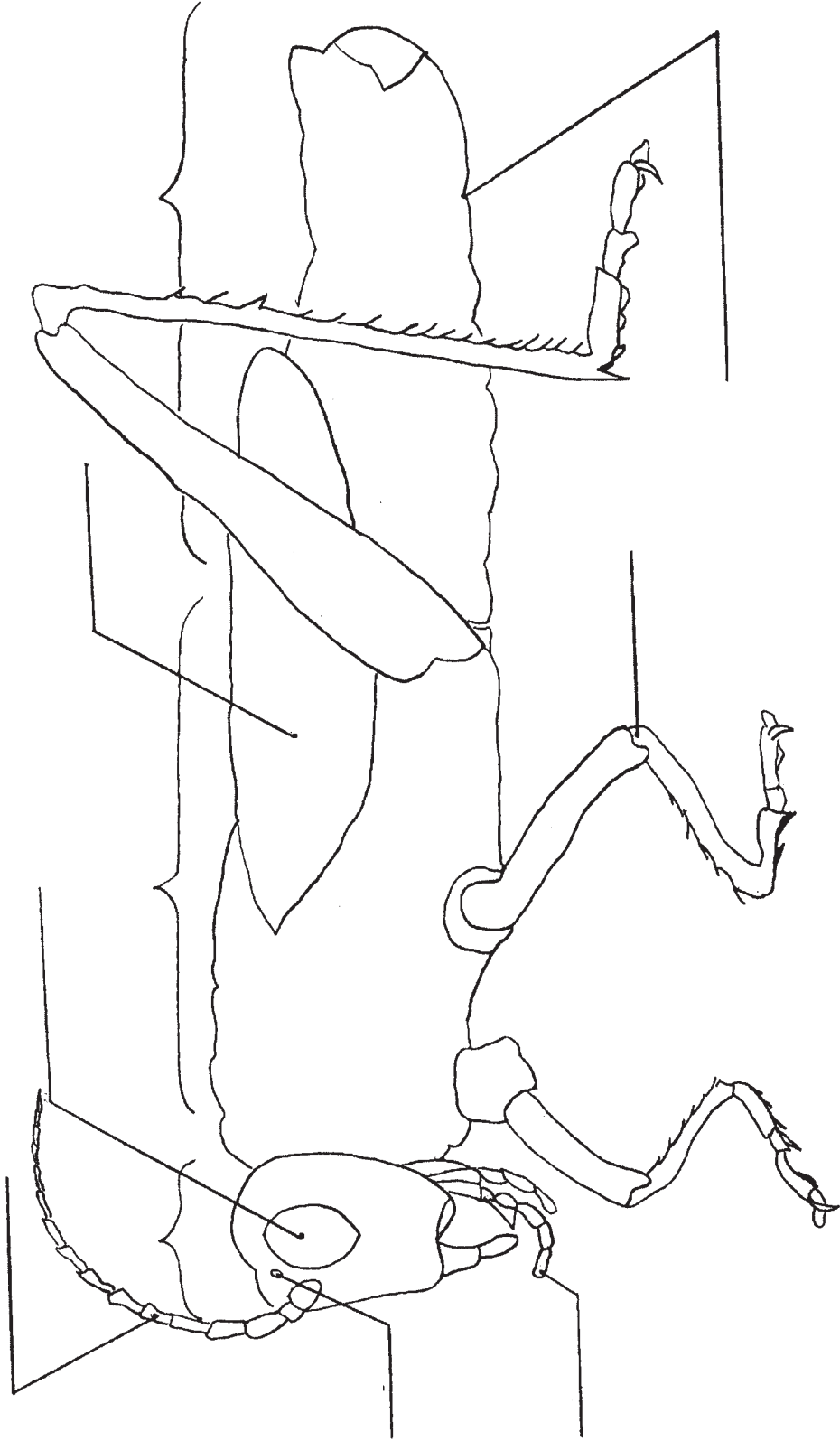
After the Survey

1. After the insect survey, ask the students to observe the captured organisms using clear plastic jars as temporary observation chambers. Have them use the Insect Prediction.
2. Chart and record on the left side of the page the names of each organism and the number of each characteristic listed across the top. In the last column they should indicate whether or not the organism is an insect. If they do not know the name of an organism, they can make up a descriptive name.
3. Ask each group to chart the features of two or three organisms; some groups may be able to do more.
4. As they study their insect catches, they can check off each specimen's features. For example, under the column named "Body parts," they can write in the number of body parts of each specimen. Do the same for other features they observe, such as antennae, wings and legs.
5. When all the groups have created charts, ask them to compare what they found with the other groups and with their original predictions. Which features were the same? Which varied? Cue the students to observe what this tells them about insect features. (Some features are common to all insects; some can vary or are difficult to see.)
6. Draw a new insect, based on their new observations. Their new predictions will probably differ from those made earlier.
7. Discuss with them that they are updating their predictions based on new information. Scientists continually update their predictions as they discover new information. They usually cannot answer all their questions; some may remain unanswered, and more questions may arise.
8. Discuss which features changed, and why.
9. What questions still exist? Are there any new ones to be added? If so, how would the students go about answering them? The students may disagree on some features. However, after having examined a variety of insects, they will have a better idea of which features are shared by all insects, and which creatures may not be insects at all.
10. Conclude the activity by reading aloud from a book about insects. Ask the students to listen carefully for information pertaining to insect characteristics, and to change the insect drawing as needed.
11. When it is finished, compare the different stages of insect drawings and predictions, and discuss how they have changed. You may also want to have children label the insect diagram.

Insect Predictions Chart

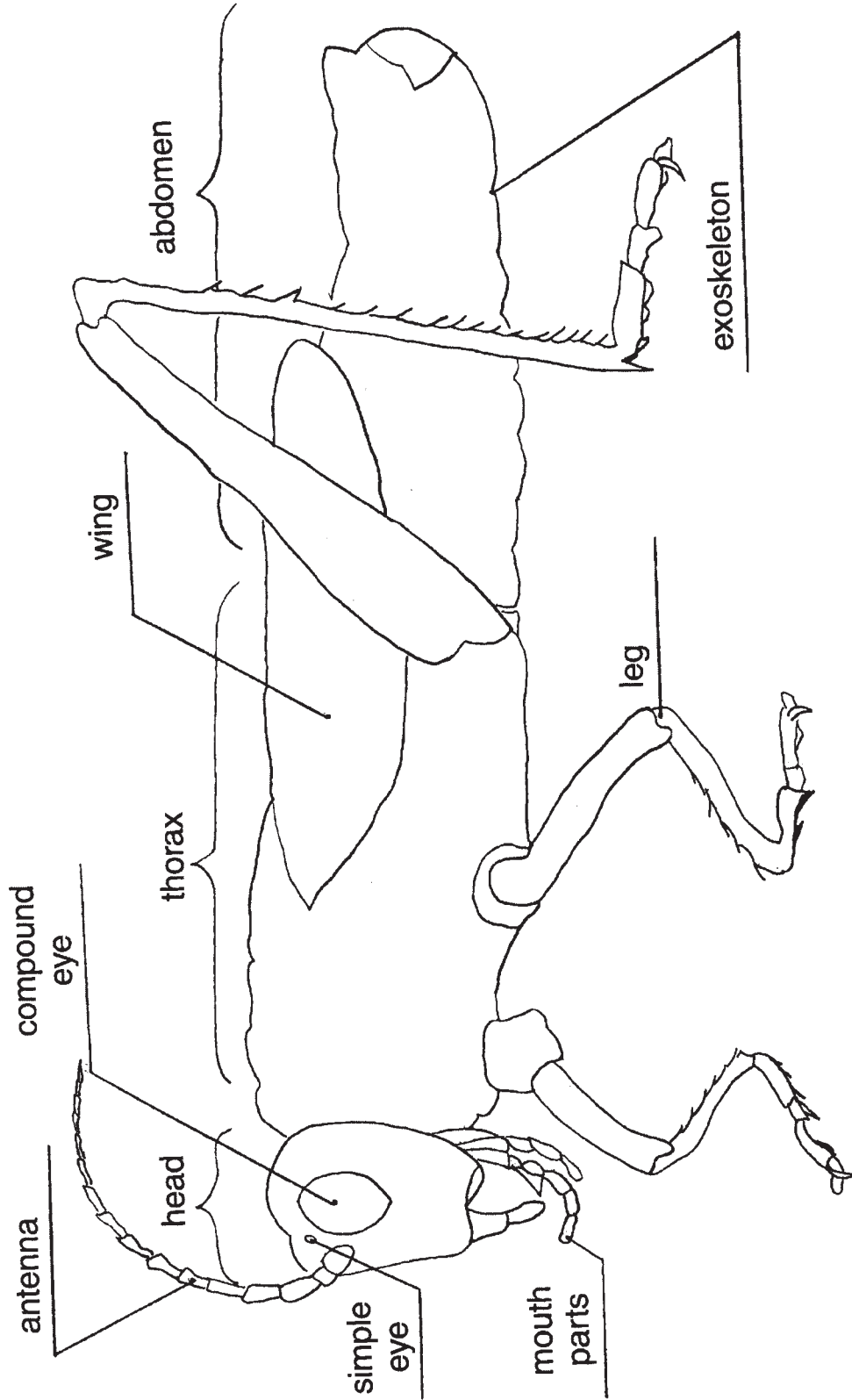
Name of organism	Number of body parts	Number of legs	Number of wings	Antennae present?	Is it an insect?

Name _____



All insects are covered by a hard exoskeleton, or skeleton covering the outside of their bodies like armor.

Answer Key



All insects are covered by a hard exoskeleton, or skeleton covering the outside of their bodies like armor.