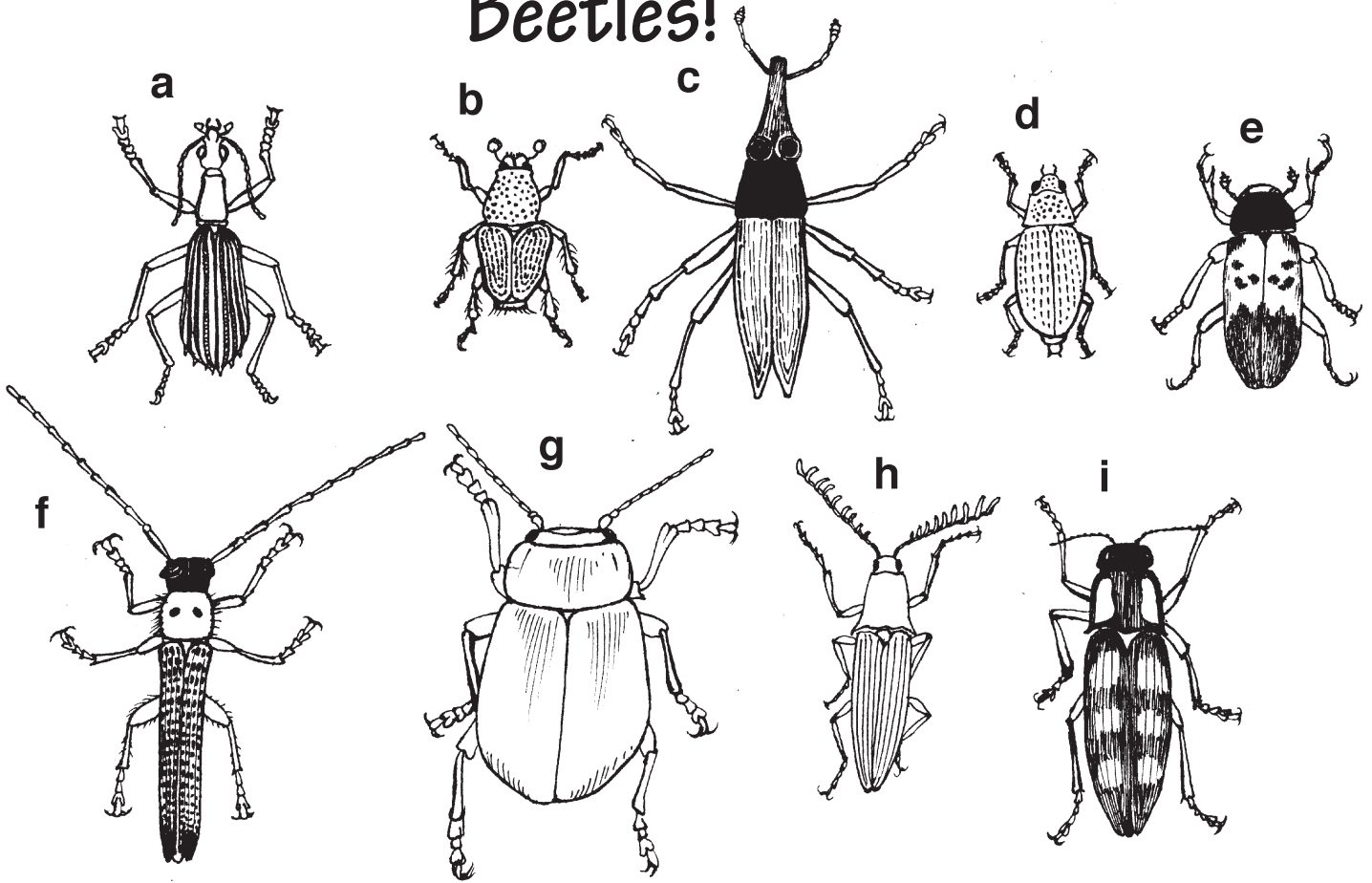


Beetles!



(1) Insects have six legs and three body parts: a head, a thorax, and an abdomen.
Are all of these insects? Explain.

(2) Carefully measure each of the beetles. Record their sizes, and tell how you measured them (Length? Width? Of which part? From where to where?). Measure in as many ways as you like (the more the better!):

(3) Which is the smallest beetle? How do you define smallest?

(4) Which is the largest beetle? How do you define largest?

(5) Sort the beetles into sets on the basis of any characteristics you like.

You can put the same beetle in more than one set.

Try to put every beetle in at least one set.

Describe in detail the characteristics of each set you make.

Write the letter of each beetle under the name of the set it goes in.

SET 1

Characteristics: _____

Beetles: _____

SET 2

Characteristics: _____

Beetles: _____

SET 3

Characteristics: _____

Beetles: _____

(6) Find a real beetle. Draw a picture of it. Label the parts of its body. Which of the pictured beetles is it most similar to? In what ways is it different from all the pictured beetles?

(7) Find another insect that is not a beetle. Tell why you think it is an insect but is not a beetle.

(8) Based on your observations of the pictures and of real beetles, guess what is a definition of a beetle. Then find out the definition from books and dictionaries and compare to your definition.

(9) Are beetles harmful or helpful to people? Do research to find out. Make a list of ways that they are harmful and ways that they are helpful.

(10) Design an experiment that someone could do to find out whether or not beetles carry diseases. Predict the results from your experiment. Think of possible problems that you might have if you were to try out your experiment, and ways you might overcome these problems.