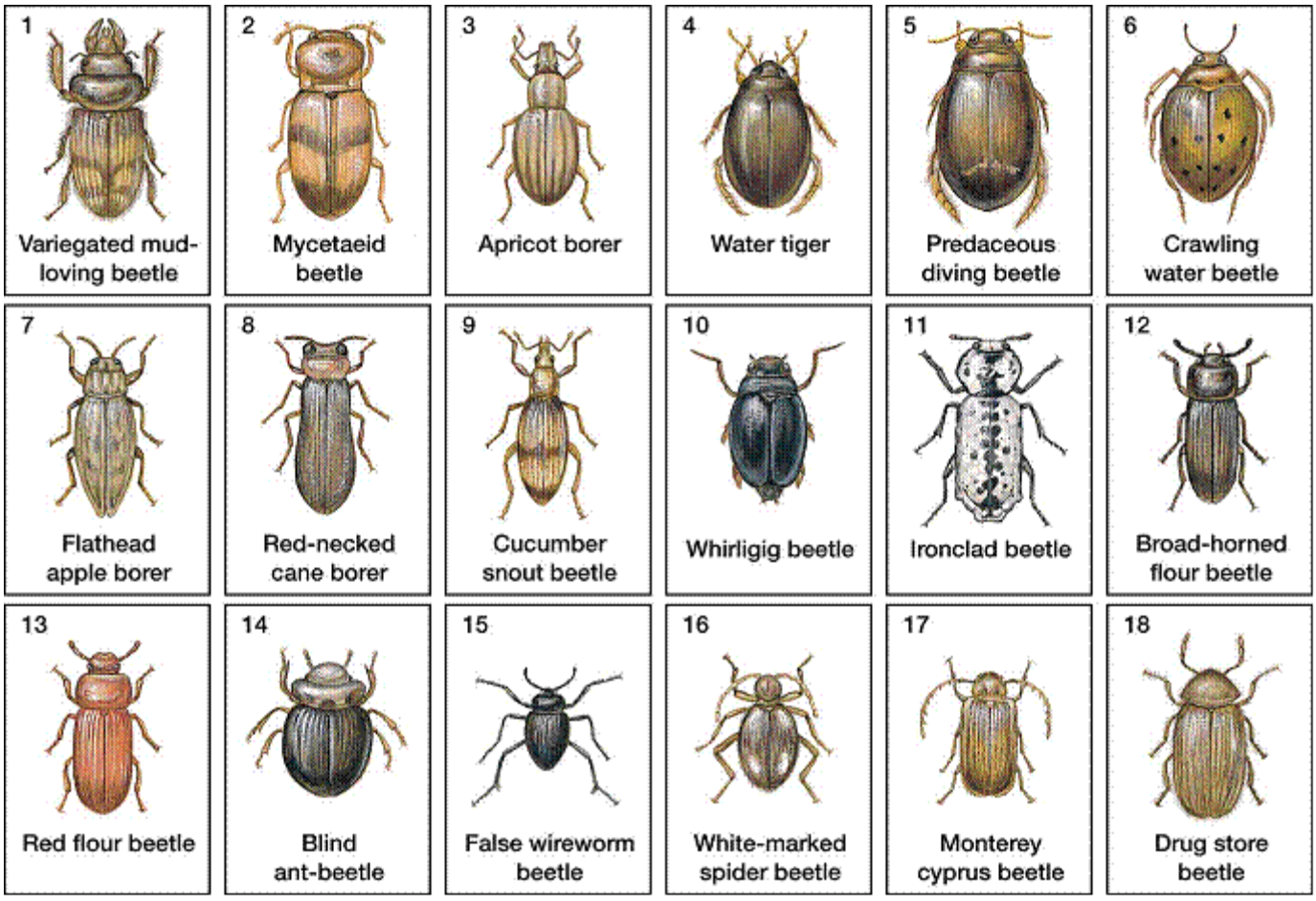
Making a Dichotomous Key

A dichotomous key is a device that can be used to easily identify an unknown organism. The word dichotomous comes from two Greek words that together mean, "divided in two parts". A dichotomous key consists of a series of two part statements that describe characteristic of organisms. At each step of a dichotomous key the user is presented with two choices. As the user makes a choice about a particular characteristic of an organism they are led to a new branch of the key. Eventually the user will be led to the name of the organism that they are trying to identify.

Procedure

1. Study the numbered drawings of 18 beetles.
2. Choose ONE characteristic of the beetles and sort the beetles into two groups based on whether they have the characteristic or not. Take measurements if you wish.
3. Record the chosen characteristic on the diagram and write the numbers of the beetles under either Group 1 or Group 2 on your diagram.
4. Select another characteristic of each subgroup, and repeat steps 3 for the next level down on your diagram.
5. Repeat this process until you have only one beetle in each group.
6. Once your diagram is complete, use it to create a dichotomous key for the beetles. To do this, create a series of numbered steps with the first step showing the first characteristic you used. At each step, offer two choices for classifying the beetle based on a single characteristic. For example, you may have used the characteristic “antennae longer than front legs” as your first dividing characteristic. Your first numbered step in your key would be (1a) antennae longer than front legs or (1b) antennae not longer than front legs.



Making a Dichotomous Key **Name:**

Tree Diagram:

Dichotomous Key:

1a. Characteristic ..... Go to step 2
1b. Alternate characteristic ..... Go to step X

2a. Subgroup of 1a ..... Go to step X
2b. Alternate characteristic Go to Step X