

Honors Biology

Shark Dichotomous Key

Summary of a Dichotomous Key

A dichotomous key is a series of statements or characteristics that can be used to identify an organism. When you use a dichotomous key, you examine an animal's broader, more general characteristics first and then look at the more specific characteristics at the end. As you follow a dichotomous key, you choose the characteristics that best describe the organism. By the time you get to the end of the key, you will have accumulated several characteristics that correspond to your organism. Finally, you will reach the name of the organism you are trying to identify and then the process starts over again with the next organism.

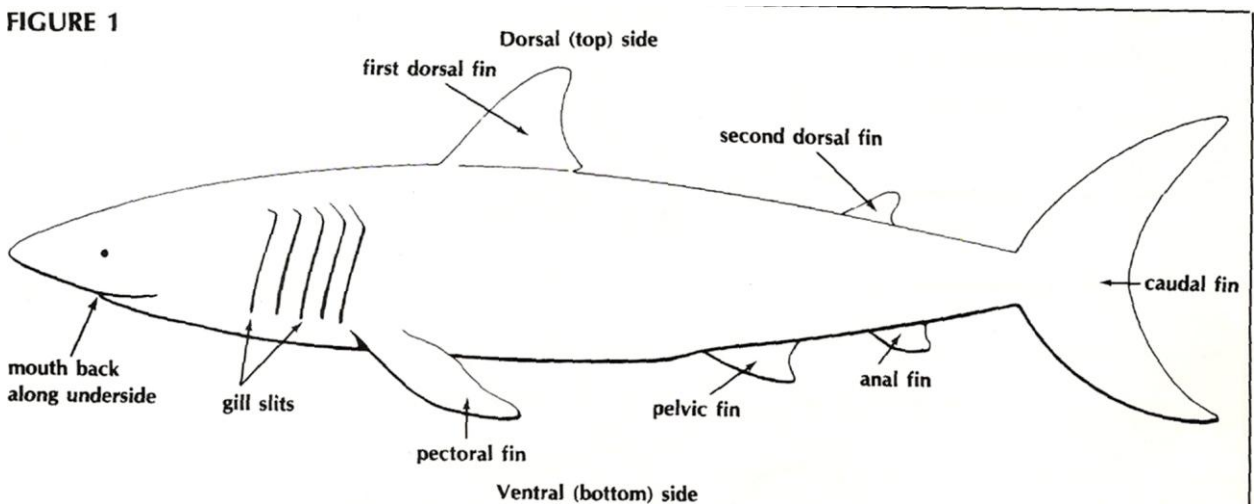
You are going to be creating a shark identification dichotomous key for your classmates, using the knowledge you have obtained in the insect discovery dichotomous key. This worksheet will be a guide to help you organize your ideas.

Procedure

1. Before we start our shark dichotomous key, we must first identify the features of a shark. Examine the features of the shark in Figure 1. You may want to use some of these features in question 2.

Features of a Shark

FIGURE 1



2. Observe the sharks in Figure 2. List at least 7 distinguishing characteristics between the sharks in the pictures, for example, number of dorsal fins, number of gills, body shape, etc.

1.

2.

3.

4.

5.

6.

7.

3. For each family of shark, identify one or two characteristics that are unique to each shark.

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

11.

12.

13.

14.

4. Using your ideas from question 2, choose one general characteristic of the sharks that could be used to classify them into two large groups based on that characteristic, for example, containing a first dorsal fin or body shape or number of gill slits.

Figure 2 Shark Identification

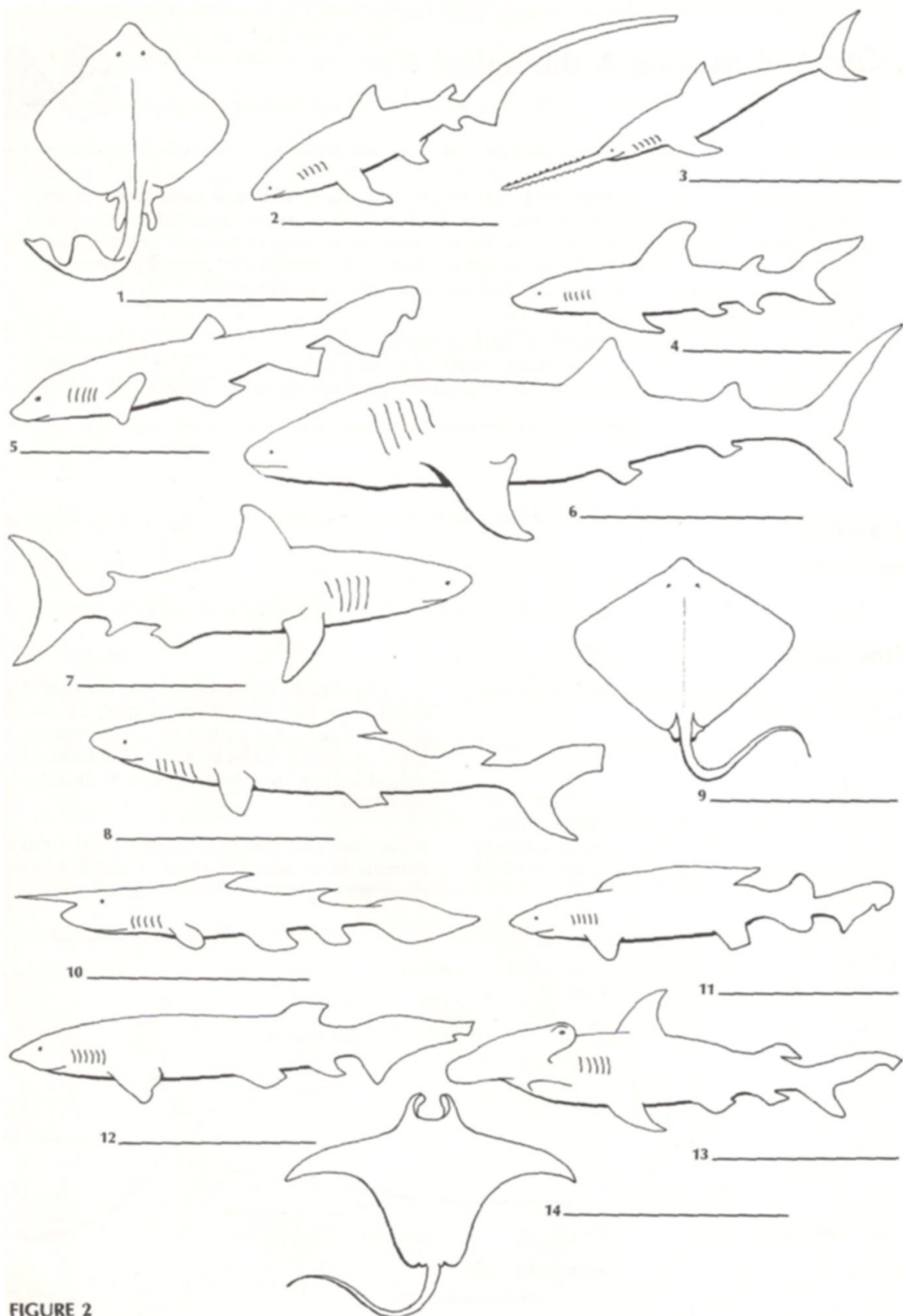
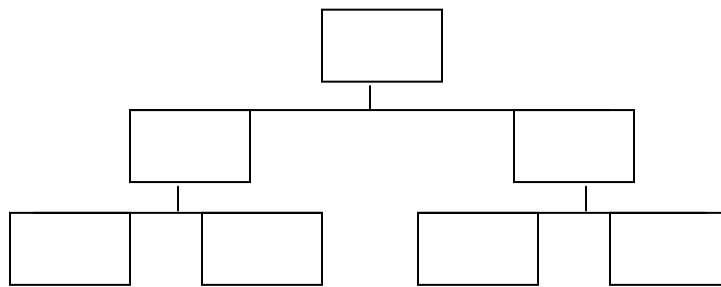


FIGURE 2

Shark Family Names

1. Family Rajidae	8. Family Squalidae
2. Family Alopiidae	9. Family Dasyatidae
3. Family Pristiophoridae	10. Family Scapanorhynchidae
4. Family Carcharhinidae	11. Family Pseudotriakidae
5. Family Scyliorhinidae	12. Family Hexanchidae
6. Family Rhinocodontidae	13. Family Sphyrnidae
7. Family Isuridae	14. Family Mobulidae

5. Record your chosen characteristic in a diagram like the one shown below. Write the numbers of the sharks in each group on your diagram.



6. Continue to form subgroups within your two groups based on different characteristics. Record the characteristics and numbers of the sharks in your diagram until you have only one shark in each group. Make your diagram in the space provided below.

7. Using the diagram you have just made in question 6, make a sentence format dichotomous key for the sharks. Remember that each numbered step should contain two choices (a and b) for classification. Begin with 1a and 1b, then go to 2a and 2b, and so on.

1a.

1b.

2a.

2b.

