

Name _____ Date _____

Mrs. Konstantinova

Living Environment

Section _____

Dichotomous Key LAB Activity

Directions: Give each of the following creatures a name (be creative). Then read the introduction below



1. _____



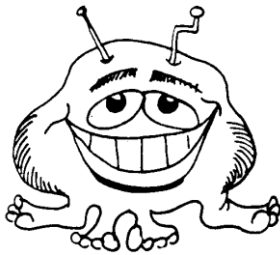
2. _____



3. _____



5. _____



4. _____



7. _____



8. _____



6. _____



9. _____



10. _____



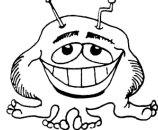







Dichotomous Key Activity

Introduction

In science we use many helping aids to organize and easily retrieve information. This particular activity is a dichotomous key activity. A dichotomous key is a tool that scientists can use to help identify a particular specimen. The specimen could be a chemical that is identified by its physical properties, an insect identified by its markings and traits, or even a rock sample based on its different properties. The term dichotomous begins with the prefix of "di" which means two. The dichotomous key allows for the scientist to ask a series of questions with yes or no answers. Each question should be phrased so that the answer will either be yes or no. Below there are questions that will show you an example of how to make a dichotomous key for the creatures, which you have just named, on the previous page.

Before you proceed, you need to choose one of the creatures on the previous page. Below I will ask you a yes or no question about your creature. I have set this key up as an example. After this activity you will practice with dichotomous key regent questions. This will count as a lab; I will **collect this next lab day**.

1. Does your creature have feet? _____ (if yes, go to Question #2) (if NO, go to question #4)
2. Does your creature have two eyes?_____ (if yes, go to Question #3) (if NO, go to question # 7)
3. Does your creature have two feet?_____ (if yes, go to Picture #1 on the next page) (if no, go to picture#3)
4. Does your creature have wheels?_____ (if yes, go to Question #5) (if NO, go to question #8)
5. Does your creature have one wheel?_____ (if yes, go to Question #6) (if NO, go to picture7)
6. Does your creature have one eye?_____ (if yes go to picture #2) (if No, go to picture 8)
7. Does your creature have two arms?_____ (if yes, go to picture 10) (if NO, go to picture 9)
8. Does your creature have teeth?_____ (if yes, go to picture 4) (if NO, go to question # 9)
9. Does your creature have wings?_____ (if yes, go to picture 5) (if NO, go to picture 6)

<p>Picture 1</p> <p>You have determined that your organism has feet, has two eyes and has two feet</p>	<p>This must be the creature you chose.</p> 
<p>Picture 2</p> <p>You have determined that your organism does not have feet but has wheels, only has one wheel, and one eye.</p>	
<p>Picture 3</p>	
<p>Picture 4</p>	
<p>Picture 5</p>	
<p>Picture 6</p>	
<p>Picture 7</p>	
<p>Picture 8</p>	
<p>Picture 9</p>	
<p>Picture 10</p>	

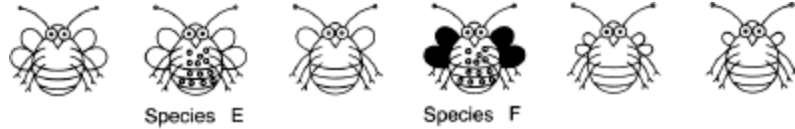
Regent Questions:

1. Base your answer on the accompanying diagram and on your knowledge of biology. The diagram represents six insect species.

A dichotomous key to these six species is shown in the accompanying diagram.

a Complete the missing information for sections 5.a. and 5.b. so that the key is complete for all six species. [1]

b Use the key to identify the drawings of species A, B, C, and D. Place the letter of each species on the line located below the drawing of the species or on a separate piece of paper. [1]

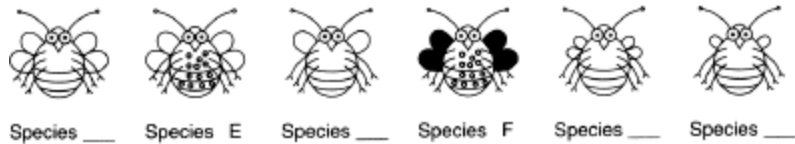


Part a

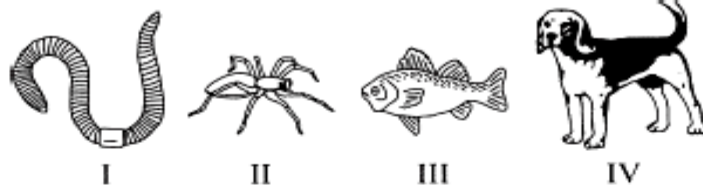
Dichotomous Key

1. a. has small wings go to 2
b. has large wings go to 3
2. a. has a single pair of wings Species A
b. has a double pair of wings Species B
3. a. has a double pair of wings go to 4
b. has a single pair of wings Species C
4. a. has spots go to 5
b. does not have spots Species D
5. a. _____ Species E
b. _____ Species F

Part b



2. Fill in all of the blanks in parts 2 and 3 of the dichotomous key shown in the accompanying diagram and chart, so that it contains information that could be used to identify the four animals shown. [2]



Dichotomous Key

- 1. a. Legs presentGo to 2
- b. Legs not present.....Go to 3

Characteristic

Organism

- 2. a. _____
- b. _____

55 A dichotomous key is shown below.

Dichotomous Key

- 1. a. tail fins are horizontal.....go to 2
- b. tail fins are vertical.....go to 3
- 2. a. has teeth or tusk.....go to 4
- b. has no teeth.....*Balaena mysticetus*
- 3. a. has gill slits behind mouth.....go to 5
- b. has no gill slits.....*Lepidosiren paradoxa*
- 4. a. black with white underside.....*Orcinus orca*
- b. tusk, gray with dark spots.....*Monodon monoceros*
- 5. a. head is hammer shaped.....*Sphyrna mokarran*
- b. tail fins are half the body length.....*Alopias vulpinus*

Use the dichotomous key to identify the scientific name of the organism represented below. [1]

