

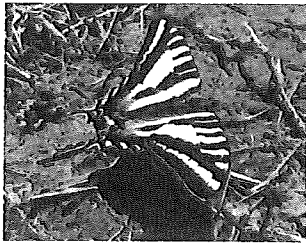
6th Science Blizzard Bag Assignment #1

Lesson #126

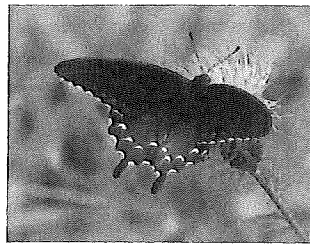
Using a Dichotomous Key

Scientists use a written tool called a **dichotomous** (dī kōt' ə mās) **key** to identify things like trees, insects, flowers, animals, rocks, and chemicals. Dichotomous means "divided into two classifications." A dichotomous key asks a series of questions, sort of like a 20-questions game. There are two choices at each step. You read each question and choose between two answers. Then, you follow the directions for what to do next.

Here is an example. There are four butterflies pictured below. Read each question and follow the steps.



A



B



C



D

Step #1 Is the butterfly mostly blue?

If yes, go to number 3.

If no, go to number 2.

Step #2 Is the butterfly mostly orange?

If yes, go to number 4.

If no, it is a Zebra Swallowtail.

Step #3 Does the butterfly have small tail-like structures at the end of its wings?

If yes, it is a Pipevine Swallowtail.

If no, it is a Red-spotted Purple butterfly.

Step #4 Does the butterfly have large "eyespots" on the back of its wings?

If yes, it is a Common Buckeye butterfly.

If no, it is a Queen butterfly.

1. Match each butterfly picture with the correct name.

_____ Pipevine Swallowtail

_____ Red-spotted Purple butterfly

_____ Zebra Swallowtail

_____ Common Buckeye butterfly

2. Scientists classify or group things according to their characteristics. List two characteristics of the Zebra Swallowtail.

3. Which organism belongs to the same kingdom as salamanders?

squirrel yeast sulfur bacteria all of these

4. Evaporation is one of the processes that is part of the water cycle. List three others.

5. What creates weather?

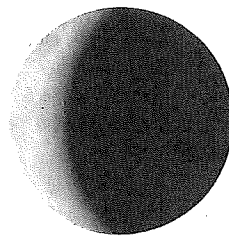
- A) air masses with different temperatures and moisture content coming into contact with each other
- B) the pull of gravity between the moon and Earth
- C) shifting of tectonic plates
- D) all of the above

6. The isotope, Copper-64, has _____ protons and _____ neutrons.
(Copper is Cu on the Periodic Table of Elements.)

7. Thermal energy is also called _____ energy.

8. Which phase of the moon is shown?

- A) new moon
- B) waxing gibbous
- C) crescent
- D) other



9. Which is an example of potential energy?

- A) a stretched rubber band
- B) electric current
- C) a deer running
- D) a baseball flying through the air

10. Part of an ecosystem that has similar wildlife, vegetation, and climate is a(n) _____.

climate ecology biome population

Lesson #127

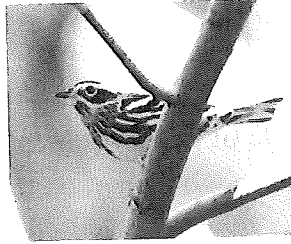
1. Observe the images and use the dichotomous key below to identify each songbird.



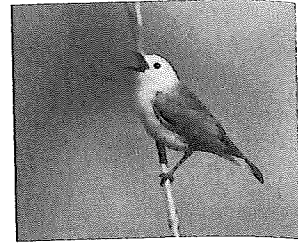
A



B



C



D

Step #1 Is the bird yellow?

If yes, go to step 2.

If no, it is a Black and White Warbler.

Step #2 Does the bird have a black mask around its face?

If yes, it is a Hooded Warbler.

If no, go to step 3.

Step #3 Does it have stripes?

If yes, it is a Prairie Warbler.

If no, it is a Prothonotary Warbler.

Match each songbird to its name.

_____ Prairie Warbler

_____ Prothonotary Warbler

_____ Black and White Warbler

_____ Hooded Warbler

2. What do most cells in the human body have in common?

- A) They all perform the same job.
- B) They all perform photosynthesis.
- C) They have a nucleus and other organelles.
- D) All of the above

3. What makes an ecosystem?

- A) organisms in a complex interdependent relationship
- B) local, state, and federal laws
- C) the combination of land and water
- D) sunlight, air, wind, and soil

4. Baking soda will dissolve in water, and when the water evaporates, the baking soda will be left in the bottom of the container.

Baking soda's ability to dissolve is a (chemical / physical) property.

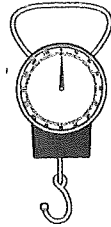
5. Which scientific instrument would you use to measure mass?



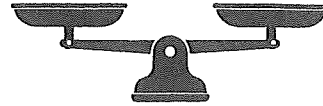
dropper



microscope



spring scale



balance

6. The largest freshwater reservoir is _____.

lakes and rivers

frozen water

groundwater

oceans

7. If baking soda is dissolved in water and then heated to its boiling point, the baking soda water will change to carbon dioxide, water, and sodium carbonate.

The tendency to change when heated is a (chemical / physical) property of baking soda.

8. Scientists believe that at least half of the entire world's species can be found in which biome?

grasslands

desert

rainforests

taiga

9. Describe two ways that a forest fire may cause a population to decrease.

10. The Law of Conservation of Energy states _____.

- A) Conserving energy is good for the environment.
B) Chemical energy stored in food is an example of potential energy.
C) Using too much energy results in depletion of the energy source.
D) Energy can neither be created or destroyed; it can only change form.