Name _____ Date _____ Period _____

Classification Notes Organizer

1. **Classification**
    a. Define ***Taxonomy***:

    b. Why do scientists classify organisms?

    c. A Greek philosopher named _____ is considered the first person to attempt a classification system for all living things.

2. **Limitations of Early Classification**
    a. What were some of the limitations to the earliest classification systems, such as Aristotle's?

3. **Carolus Linnaeus**
    a. Nicknamed the " _____ _____ _____"

    b. Describe the classification system developed by Carolus Linnaeus

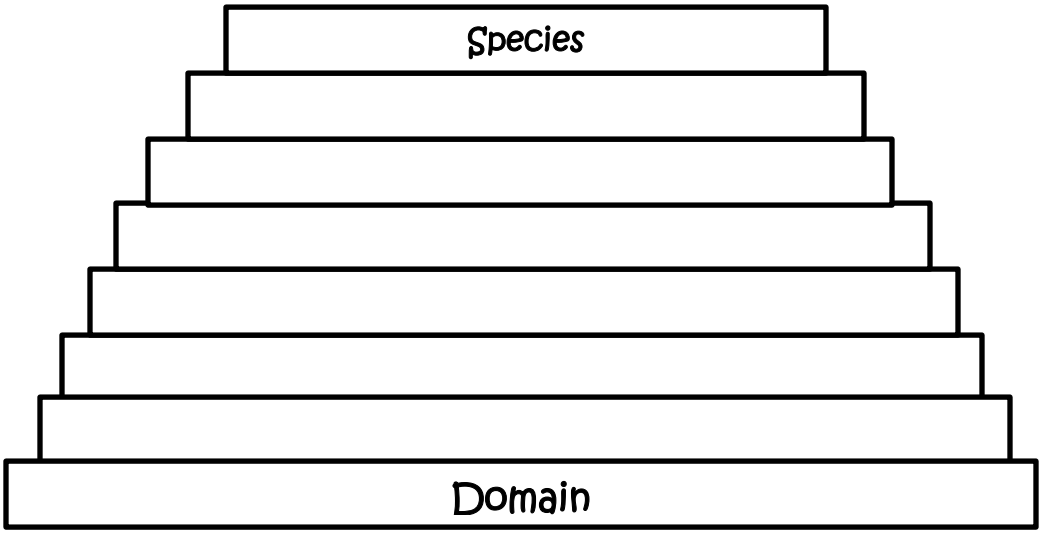
4. **Binomial Nomenclature – "Two Name" Scientific Naming System**
    a. What is the purpose of giving organisms a scientific name, instead of simply using common names?

    b. Identify the rules of ***binomial nomenclature***.

    c. Give **two examples** of common names and their scientific names (written correctly).

Common Name	Scientific Name

5. **Taxonomic Hierarchy**
    a. Complete the levels of ***taxonomic hierarchy***.



    b. Why is **domain** the largest box and **species** the smallest?

6. **Domains**
    a. Identify the **three domains** and the ***organisms*** you will find in each.

7. **Kingdoms**
    a. Identify the **six kingdoms** accepted by today's scientists and the major characteristics of each.

Kingdom Name						
Organisms and Characteristics						

8. **Modern Taxonomy**
    a. Classifies organisms in the context of _____.

    b. Briefly describe the four major sources of information used by scientists to classify organisms.
        - Morphology

        - Biological Macromolecules

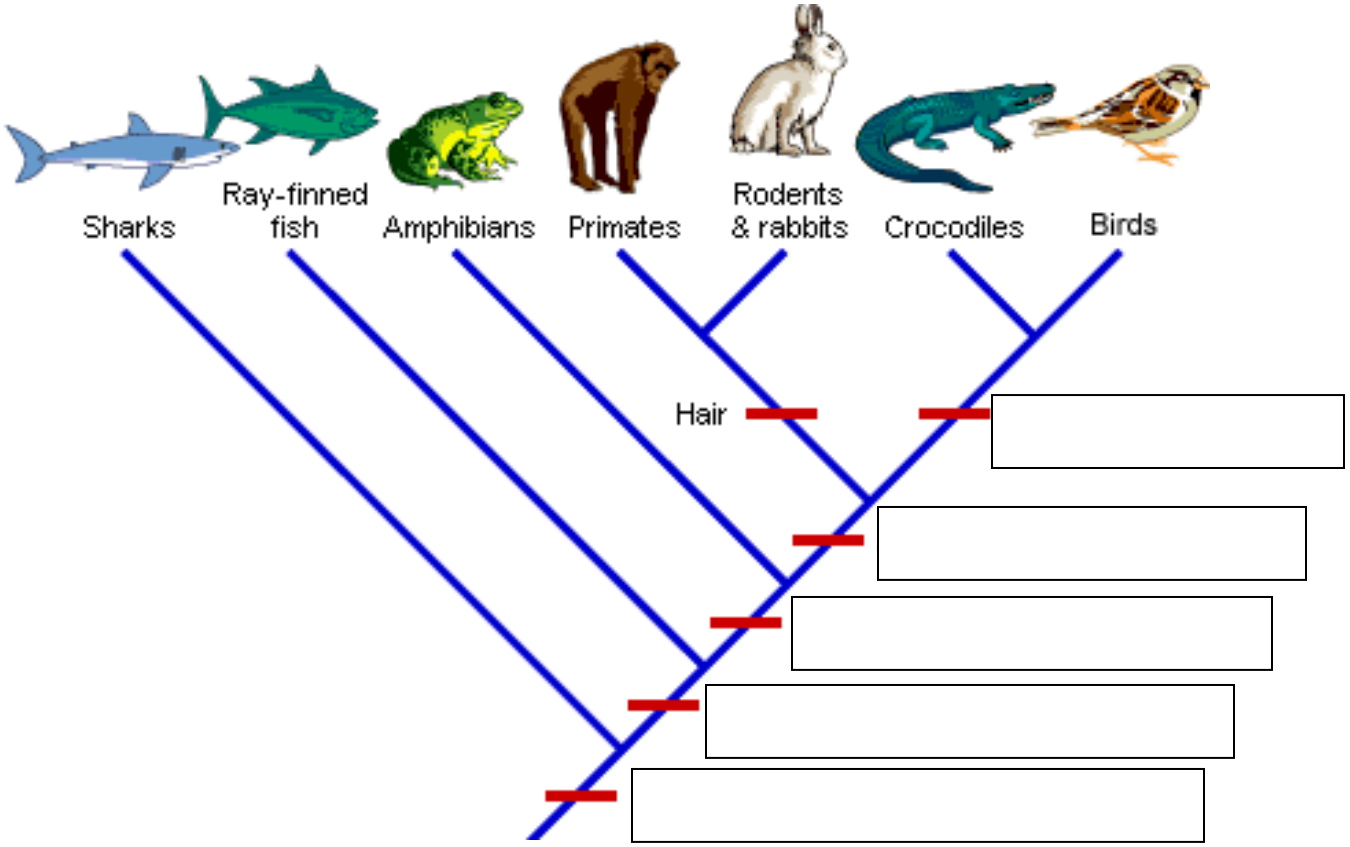
        - Fossil Record

9. **Cladistics**

a. Define ***cladistics***:

b. What tool illustrates cladistic (evolutionary) relationships?

c. ***Complete the cladogram*** by filling in the <u>derived characteristics</u>.



d. What kind of information does *this particular cladogram* tell you?

10. Dichotomous Keys

a. What does ***dichotomous*** mean?

b. Describe the purpose of a dichotomous key.

c. What are the rules in making a dichotomous key?

d. Create a dichotomous key for the shapes below.