

Name: _____

Period: _____

In your textbook, read about the need for classifying organisms and binomial nomenclature. Circle the letter of the choice that best completes the statement.

1. The science of classification is called
 - a. biology
 - b. zoology
 - c. taxonomy
 - d. taxa

2. A classification system for organisms
 - a. ensures that biologists know about new forms of life.
 - b. provides guidance for explorers of marine caves and other habitats.
 - c. allows unfamiliar organisms to be identified and assigned names on a logical basis.
 - d. causes biologists to make mistakes in classifying newly discovered organisms.

3. Unlike common names, scientifically accepted names
 - a. vary from country to country.
 - b. vary from continent to continent.
 - c. are the same all over the world.
 - d. are the same in all countries where most people can read and write.

4. On what bases did Aristotle classify plants and animals?

5. On what was the classification scheme that Linnaeus devised based?

6. How is the system of binomial nomenclature used to classify living organisms?

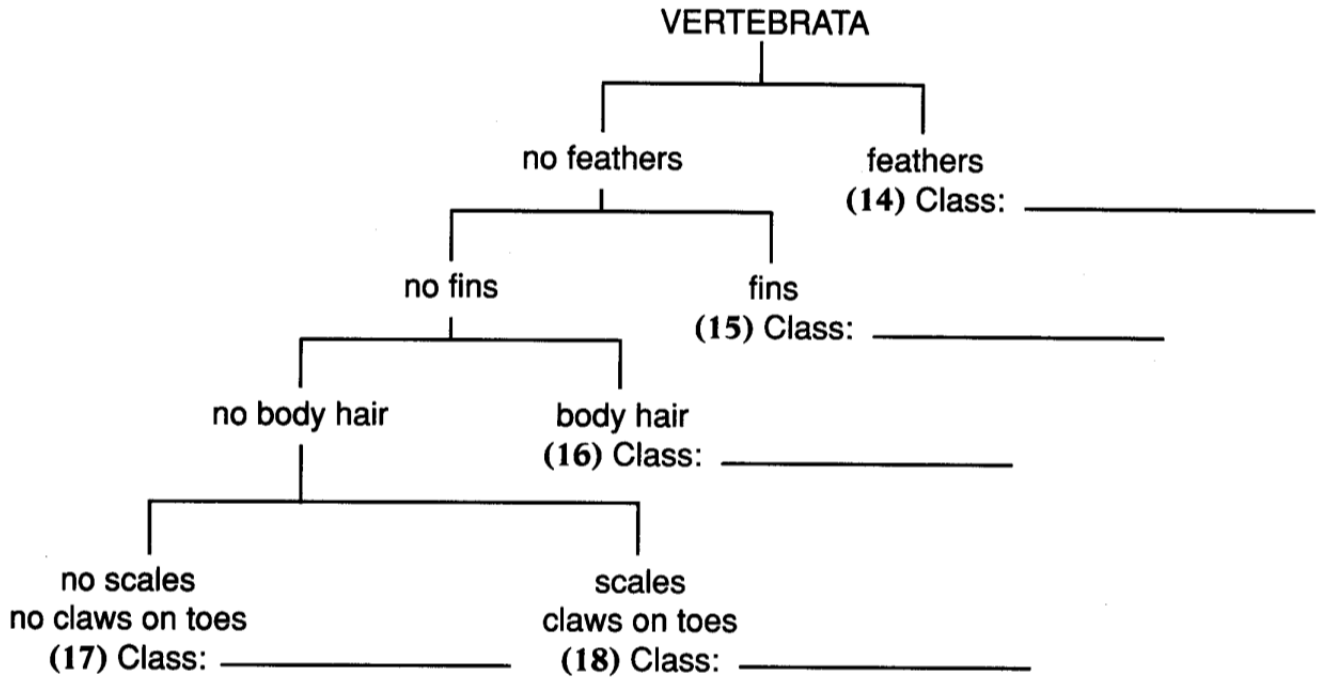
7. For each item in Column A, write the letter of the matching item in Column B. (Look at page 270 for help)

Column A	Match	Column B
8. species of human	___	a. Primates
9. kingdom of bald eagle	___	b. Hominidae
10. kingdom of rose	___	c. Vertebrata
11. genus of dog	___	d. Homo sapiens
12. phylum of bald eagle	___	e. Insecta
13. class of chimpanzee	___	f. Animalia
14. class of ant	___	g. Canis
15. order of gorilla	___	h. Plantae
16. family of human	___	i. Chordata
17. subphylum of cat	___	j. Mammalia

A System of Classification

Examine the key to the classes of the subphylum, Vertebrata, animals with backbones. Fill in the missing class names. Use these choices:

Mammalia (mammals) Pisces (fish) Reptilia (reptiles) Aves (birds) Amphibia (amphibians)



Use the classification key above to determine the class of each animal listed below. Write the class to which each animal belongs. (Look at page 270 for help)

- | | |
|--------------|--------------|
| a. trout | i. toad |
| b. crocodile | j. salmon |
| c. cow | k. turkey |
| d. chicken | l. chameleon |
| e. shark | m. snake |
| f. kangaroo | n. porpoise |
| g. lizard | o. alligator |
| h. turtle | p. eagle |

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Use the terms in the list below to complete the paragraphs.

You will not use some terms. You will use others more than once.

**binomial nomenclature | class | family | genus | kingdom | order
phylogeny | phylum | species | taxa | taxonomy | Domain | scientific name**

(1) _____ is the science of classifying organisms into categories. The categories are known as (2) _____. These categories are arranged from most specific to most general. The most specific classification into which an organism is placed is called the (3) _____. The next category of classification is the (4) _____ of the organism. Next, in degree of generality, is the (5) _____, followed by the (6) _____. The next level of generality is the (7) _____, followed by the (8) _____. The (9) _____ is the level just under the final, and most general category into which the organism is classified is called the (10) _____. In this system for naming and classifying organisms, referred to as (11) _____, every organism is given a two-word name. The first word, a Latin noun, names the (12) _____ of the organism while the second word, the (13) _____ is a Latin adjective, describes some specific characteristic of the organism. Together the two words together name the exact (14) _____ of the organism.

List the levels of classification for organisms.

Begin with the most general (highest) category, and end with the most specific (lowest).

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.

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Match the definition in Column A with the correct term in Column B.

Column A

Column B

- _____ 1. study of developing organisms which provides evidence of evolution
- _____ 2. organism that requires a supply of organic material from the environment
- _____ 3. any breeding group of organisms
- _____ 4. structure that has no function in a living organism but which may have been of use to ancestors of the organism
- _____ 5. term for structures with similar origins among different groups of descendants of a common ancestor
- _____ 6. process in which an organism uses energy from chemical reactions to produce food
- _____ 7. early stage of a developing plant or animal
- _____ 8. organism that makes its own food through a process such as photosynthesis
- _____ 9. study of the structures of different organisms
- _____ 10. the entire evolving collection of genes in a population
- _____ 11. process by which the best adapted individuals in a population survive and produce similarly adapted offspring
- _____ 12. study of the chemistry of organisms
- _____ 13. trace, part, or all of an organism preserved or petrified that gives evidence of the organism's existence long ago

- a. fossil
- b. autotroph
- c. homologous
- d. comparative anatomy
- e. embryo
- f. natural selection
- g. gene pool
- h. population
- i. chemosynthesis
- j. comparative biochemistry
- k. comparative embryology
- l. heterotroph
- m. vestigial organisms