## Section 18-1 Finding Order in Diversity (Pages 447-450)

Why Classify? (page447)

1. Why do biologists use a classification system to study diversity of life?

2. The science of classifying organisms and assigning them universally accepted names is known as \_\_\_\_\_\_.

3. Is the following sentence true or false? In a good system of classification,

organisms placed into a particular group are less similar to each other than they are to organisms in other groups.

Assigning Scientific Names (page 448)

4. Why is it confusing to refer to organisms by common names? \_\_\_\_\_

5. Circle the letter of each sentence that is true about early efforts at naming organisms.

- a. Names were usually in English.
- b. Names often described detailed physical characteristics of a species.
- c. Names could be very long.
- d. It was difficult to standardize the names.
- 6. The two-word naming system developed by Linnaeus is called \_\_\_\_\_

- 7. Circle the letter of each sentence that is true about binomial nomenclature.
  - a. The system is no longer in use today.
  - b. Each species is assigned a two-part scientific name.
  - c. The scientific name is always written in italics.
  - d. The second part of the scientific name is capitalized.
- 8. What is the genus of the grizzly bear, Ursus arctos?

Linnaeus's System of Classification (pages 449-450)

9. A group or level of organization in taxonomy is called a taxonomic category, or

10. The largest taxonomic category in Linnaeus's system of classification is the \_\_\_\_\_\_, and the smallest is the \_\_\_\_\_\_.

11. What two kingdoms did Linnaeus name? \_\_\_\_\_

12. Fill in the name of each missing taxonomic category in the chart below.

## Section 18-3 Kingdoms and Domains (pages 457-461)

The Tree of Life Evolves (pages 457-458)

1. Is the following sentence true or false? The scientific view of life was more

complex in Linnaeus's time.

2. What fundamental traits did Linnaeus use to separate plants from animals?

3. What types of organisms were later placed in the Kingdom Protista?

4. Mushrooms, yeast, and molds have been placed in their own kingdom, which is called \_\_\_\_\_

\_\_\_\_\_

5. Why did scientists place bacteria in their own kingdom, the Monera?

6. List the two groups into which Monera have been separated.

a. \_\_\_\_\_ b.\_\_\_\_

7. Complete the concept map.

<u>The Three-Domain System</u> (page 458)

8. A more inclusive category than any other, including the kingdom, is the

9. What type of analyses have scientists used to group modern organisms into domains?

10. List the three domains.

a. \_\_\_\_\_ b. \_\_\_\_\_ c. \_\_\_\_\_

11. Complete the chart below.

## CLASSIFICATION OF LIVING THINGS

Domain	Kingdom	Examples
	Eubacteria	Streptococcus, Escherichia coli
Archaea		
	Protista	
		Mushrooms, yeasts
	Plantae	
		Sponges, worms, insects, fishes, mammals

## Domain Bacteria (page 459)

12. Circle the letter of each sentence that is true about members of the domain Bacteria.

- a. They are multicellular.
- b. They are prokaryotes.
- c. They have rigid cell walls.
- d. The cell walls contain peptidoglycans.

13. Is the following sentence true or false? All members of the domain Bacteria are parasites.

Domain Archaea (page 459)

14. Circle the letter of each sentence that is true about the members of the domain Archaea.

- a. They are unicellular.
- b. They are eukaryotes.
- c. They lack cell walls.
- d. They lack cell membranes.

15. Is the following sentence true or false? Many members of the domain Archaea can survive only in the absence of oxygen.

Domain Eukarya (pages 460-461)

16. Circle the letter of each sentence that is true about all members of the domains Eukarya.

- a. They have a nucleus.
- b. They are multicellular.
- c. They are heterotrophs.
- d. They have cell walls and chloroplasts.

Match each kingdom with the description that applies to members of that kingdom.

Kingdom	Description
17. Protista	a. They have cell walls of chitin.
18. Fungi	b. They have no cell walls or chloroplasts.
19. Plantae	c. They include slime molds and giant kelp.
20. Animalia	d. They include mosses and ferns.