

## CH. 18 Classification

Name: \_\_\_\_\_

- \_\_\_\_\_ 1. *Biologists use a classification system to group organisms in part because organisms*
- are going extinct.*
  - are very numerous and diverse.*
  - are too much alike.*
  - share too many derived characters.*
- \_\_\_\_\_ 2. *Scientists assign each kind of organism a universally accepted name in the system known as*
- traditional classification.*
  - the three domains.*
  - binomial nomenclature.*
  - cladistics.*
- \_\_\_\_\_ 3. *For many species, there are often regional differences in their*
- common names.*
  - scientific names.*
  - taxa.*
  - binomial nomenclature.*
- \_\_\_\_\_ 4. *In taxonomy, a group at any level of organization is referred to as a*
- cladogram.*
  - binomial.*
  - taxon.*
  - system.*
- \_\_\_\_\_ 5. *Based on their names, you know that the baboons *Papio annubis* and *Papio cynocephalus* do NOT belong to the same*
- class.*
  - family.*
  - genus.*
  - species.*
- \_\_\_\_\_ 6. *The second part of a scientific name is unique to each*
- order*
  - family*
  - genus .*
  - species*
- \_\_\_\_\_ 7. *In Linnaeus's system of classification, how many taxonomic categories were there?*
- one*
  - three*
  - five*
  - seven*
- \_\_\_\_\_ 8. *A genus is composed of a number of related*
- kingdoms.*
  - phyla.*
  - orders.*
  - species.*
- \_\_\_\_\_ 9. *Several different classes make up a*
- kingdom.*
  - phylum.*
  - family.*
  - genus.*

- \_\_\_\_\_ 10. Which two kingdoms did Linnaeus recognize?
- bacteria and animals*
  - plants and fungi*
  - plants and animals*
  - protists and animals*
- \_\_\_\_\_ 11. Animals that are warm-blooded, have body hair, and produce milk for their young are grouped in the class
- Amphibia.*
  - Mammalia.*
  - Aves.*
  - Reptilia.*
- \_\_\_\_\_ 12. The most general and largest category in Linnaeus's system is
- the phylum.*
  - the kingdom.*
  - the genus.*
  - the domain.*
- \_\_\_\_\_ 13. Traditional classifications tended to take into account primarily
- extinct organisms.*
  - RNA similarities.*
  - DNA similarities.*
  - general similarities in appearance.*
- \_\_\_\_\_ 14. Sometimes, organisms that are not closely related look similar because of
- convergent evolution.*
  - molecular clocks.*
  - mutations.*
  - reclassification.*
- \_\_\_\_\_ 15. The procedure of grouping organisms based on their evolutionary history is called
- traditional classification.*
  - binomial nomenclature.*
  - derived characters.*
  - evolutionary classification.*
- \_\_\_\_\_ 16. An analysis of derived characters is used to generate a
- family tree based on external appearance.*
  - family tree based on DNA structure.*
  - cladogram.*
  - traditional classification system.*
- \_\_\_\_\_ 17. What does a cladistic analysis show about organisms?
- the relative importance of each derived character*
  - the order in which derived characters evolved*
  - the general fitness of the organisms analyzed*
  - all traits of each organism analyzed*
- \_\_\_\_\_ 18. What do all organisms have in common?
- They use DNA and RNA to pass on information.*
  - They are all prokaryotes.*
  - They are all eukaryotes.*
  - They are genetically identical.*

- \_\_\_\_\_ 19. *What does the presence homologous structures in very different organisms imply?*
- The genes were produced by different selection pressures.*
  - The organisms share a common ancestor.*
  - The organisms do not share a common ancestor.*
  - The genes became identical through mutation.*
- \_\_\_\_\_ 20. *All organisms in the kingdoms Protista, Plantae, Fungi, and Animalia are*
- multicellular organisms.*
  - photosynthetic organisms.*
  - eukaryotes.*
  - prokaryotes.*
- \_\_\_\_\_ 21. *Which of the kingdoms in the six-kingdom system of classification was once grouped with plants?*
- Animalia*
  - Carnivores*
  - Fungi*
  - Protista*
- \_\_\_\_\_ 22. *Some scientists propose that the kingdom Protista should be broken up into several kingdoms. Which of these statements accurately supports this idea?*
- Protists are all very similar and easy to confuse.*
  - Protista contains very diverse organisms that do not fit into the other kingdoms.*
  - Protists are the most numerous organisms on Earth.*
  - Protista evolved before any other kingdom.*
- \_\_\_\_\_ 23. *The domain that contains unicellular organisms that live in extreme environments is*
- Eubacteria.*
  - Eukarya.*
  - Archaea.*
  - Bacteria.*
- \_\_\_\_\_ 24. *The two domains composed of only unicellular organisms are*
- Eubacteria and Archaea.*
  - Eukarya and Bacteria.*
  - Archaea and Plantae.*
  - Archaea and Eukarya.*
- \_\_\_\_\_ 25. *What kind of analysis focuses on the order in which derived characters appeared in organisms?*
- cladistic analysis*
  - traditional classification*
  - taxonomy*
  - anatomy*
- \_\_\_\_\_ 26. *Organisms in the kingdoms Eubacteria and Archaeobacteria were previously grouped in a kingdom called*
- Animalia.*
  - Fungi.*
  - Monera.*
  - Eukarya.*

Other

USING SCIENCE SKILLS

Classification of Four Organisms

	<b>Corn</b>	<b>Whale Shark</b>	<b>Humpback Whale</b>	<b>Spider Monkey</b>
<b>Kingdom</b>	<i>Plantae</i>	<i>Animalia</i>	<i>Animalia</i>	<i>Animalia</i>
?	<i>Anthophyta</i>	<i>Chordata</i>	<i>Chordata</i>	<i>Chordata</i>
?	<i>Monocotyledones</i>	<i>Chondrichthyes</i>	<i>Mammalia</i>	<i>Mammalia</i>
?	<i>Commelinales</i>	<i>Squaliformes</i>	<i>Cetacea</i>	<i>Primates</i>
?	<i>Poaceae</i>	<i>Rhincodontidae</i>	<i>Balaenopteridae</i>	<i>Atelidae</i>
?	<i>Zea</i>	<i>Rhincodon</i>	<i>Megaptera</i>	<i>Ateles</i>
<b>Species</b>	<i>mays</i>	<i>typus</i>	<i>novaeangilae</i>	<i>paniscus</i>

Figure 18-4

27. **Using Tables and Graphs** Which two organisms listed in Figure 18-4 are most closely related to each other?
28. **Using Tables and Graphs** Which level of taxonomic category shown in Figure 18-4 indicates whether an organism is a mammal or not?
29. What does the phylum chordata represent?
30. List the binomial nomenclature for the whale shark

