

Chapter 17

Organizing Life's Diversity, *continued*

Reinforcement and Study Guide

Section 17.2 The Six Kingdoms

In your textbook, read about how evolutionary relationships are determined.

Explain how scientists use each item below to determine the evolutionary relationships among organisms.

1. structural similarities: _____

2. breeding behavior: _____

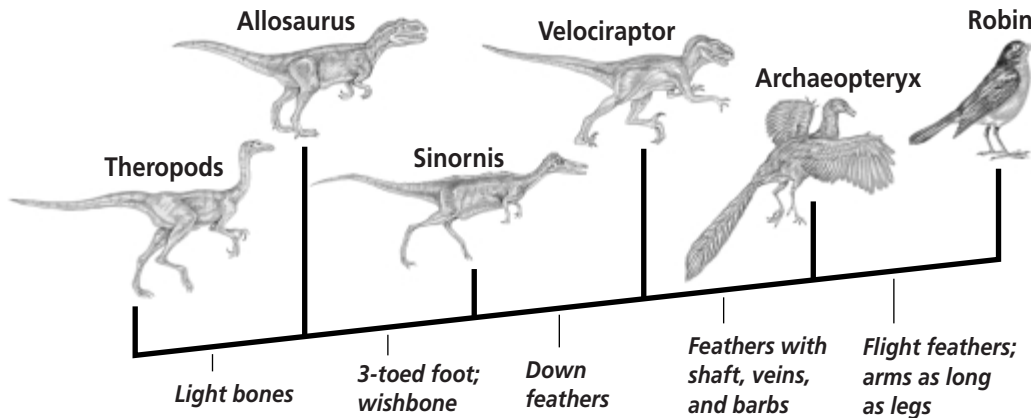
3. geographical distribution: _____

4. chromosome comparisons: _____

5. biochemistry: _____

In your textbook, read about phylogenetic classification: models.

Use the cladogram to answer the questions.



6. What five probable ancestors of the modern bird (robin) are shown on the cladogram?

7. Which dinosaur is probably the most recent common ancestor of *Velociraptor* and *Archaeopteryx*?

8. Which traits shown on the cladogram are shared by *Archaeopteryx* and modern birds?

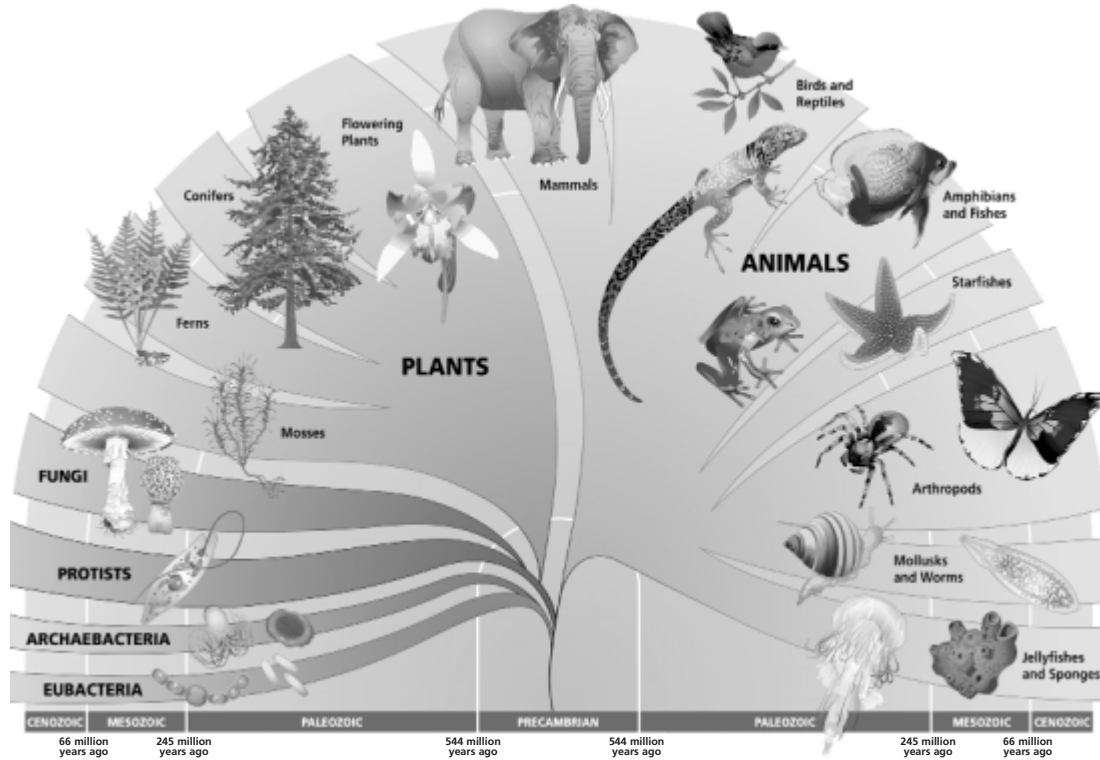
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Use the fanlike phylogenetic diagram to answer the questions.



9. How does the fanlike diagram differ from a cladogram?

10. Which group of plants evolved most recently? _____
11. To which group are starfishes more closely related, arthropods or jellyfishes? _____
12. Which group of animals includes the fewest species? _____
13. About how long ago did plants evolve? _____

In your textbook, read about the six kingdoms of organisms.

Circle the letter of the choice that best completes the statement or answers the question.

14. Organisms that do not have a nucleus bounded by a membrane are
 a. multicellular. b. eukaryotes. c. protists. d. prokaryotes.
15. Fungi obtain food by
 a. photosynthesis. b. chemosynthesis.
 c. endocytosis. d. absorbing nutrients from organic materials.
16. Animals are
 a. autotrophs. b. heterotrophs. c. prokaryotes. d. stationary.