

## Skills Worksheet

# Directed Reading

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## Section: Modern Systematics

In the space provided, write the letter of the term or phrase that best completes each statement or best answers each question.

- \_\_\_\_\_ 1. The science of classifying organisms according to their relationships is
- systematics.
  - anatomy.
  - cladistics.
  - taxonomy.
- \_\_\_\_\_ 2. Which modern group of animals do some scientists think of as a subgroup of dinosaurs?
- fish
  - mammals
  - birds
  - reptiles
- \_\_\_\_\_ 3. The evolutionary history of a group of organisms is called its
- fossil evidence.
  - classification.
  - family tree.
  - phylogeny.
- \_\_\_\_\_ 4. Convergent evolution happens when similarities evolve in
- closely related groups.
  - groups that live in different environments.
  - groups that have similar lifestyles.
  - members of the same species.
- \_\_\_\_\_ 5. An example of an ancestral character shared by conifers and flowering plants is
- flowers.
  - seeds.
  - fruits.
  - cones.
- \_\_\_\_\_ 6. Which is the name for a family tree made using cladistics?
- clade
  - cladogram
  - phylogeny
  - morphology

**Directed Reading *continued***

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- \_\_\_\_\_ 7. A cladogram is based entirely on whether an organism has or does not have a(n)
- a. derived character.
  - b. ancestral character.
  - c. analogous character.
  - d. homologous character.

**In the space provided, explain how the terms in each pair differ in meaning.**

8. ancestral character, derived character

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9. cladistics, phylogeny

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**Read the question, and write your answer in the space provided.**

10. What is the principle of parsimony?

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