

Skills Worksheet

# Critical Thinking

## Work-Alikes

In the space provided, write the letter of the phrase that best describes how each numbered item functions.

- |                                |   |
|--------------------------------|---|
| _____ 1. carrying capacity     | a. a ballroom dance                     |
| _____ 2. coevolution           | b. the bully who takes your lunch money |
| _____ 3. symbiosis             | c. a perfect performance                |
| _____ 4. niche                 | d. weight limit for a bridge            |
| _____ 5. competitive exclusion | e. keeping up with the “Joneses”        |

## Cause and Effect

In the space provided, write the letter of the term or phrase that best matches each cause or effect given below.

Cause	Effect	
6. sustained high birthrate	_____	a. disease can wipe out a population
7. density-dependent factor	_____	b. mutualistic symbiosis
8. _____	exponential growth is limited	c. more sunlight is obtained
9. _____	both species benefit	d. population approaching carrying capacity
10. density-independent factors	_____	e. exponential growth
11. _____	plants evolve toxic compounds	f. herbivory
12. orchids grow high in tree branches	_____	g. small populations may not survive drought or fire

**Critical Thinking** *continued***Trade-Offs**

In the space provided, write the letter of the bad news item that best matches each numbered good news item below.

**Good News**

- \_\_\_\_\_ 13. Parasites do not usually kill their prey.
- \_\_\_\_\_ 14. Many plants are protected from herbivores by defensive chemicals.
- \_\_\_\_\_ 15. Predators are efficient at catching prey.
- \_\_\_\_\_ 16. Keystone species maintain a healthy ecosystem.

**Bad News**

- a. Without them, it would collapse.
- b. Some animals can break them down.
- c. The host is usually harmed.
- d. Some animals have evolved escape mechanisms.

**Linkages**

In the spaces provided, write the letters of the two terms or phrases that are linked together by the term in the middle. The choices can be placed in any order.

17. \_\_\_\_\_ exponential growth \_\_\_\_\_

18. \_\_\_\_\_ population \_\_\_\_\_

19. \_\_\_\_\_ coevolution \_\_\_\_\_

20. \_\_\_\_\_ host \_\_\_\_\_

21. \_\_\_\_\_ competitive exclusion \_\_\_\_\_

- a. predator
- b. a group of organisms of the same species
- c. high birthrate
- d. live together in one place at one time
- e. parasite
- f. carrying capacity
- g. one is eliminated
- h. one is harmed
- i. shared niche
- j. prey

Critical Thinking *continued*

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## Analogies

An analogy is a relationship between two pairs of terms or phrases written as  $a : b :: c : d$ . The symbol  $:$  is read as “is to,” and the symbol  $::$  is read as “as.” In the space provided, write the letter of the pair of terms that best completes the analogy shown.

- \_\_\_\_\_ 22. high birthrate : exponential growth ::  
a. emigration : death rate  
b. low death rate : logistic growth  
c. low birthrate : small population  
d. immigration : birthrate
- \_\_\_\_\_ 23. predators : prey ::  
a. orchids : trees  
b. hosts : parasites  
c. herbivores : plants  
d. cleaner shrimp : fish
- \_\_\_\_\_ 24. potential competitors : divided resources ::  
a. beavers : dams  
b. warblers : spruce trees  
c. sea otters : kelp forests  
d. large predators : zebras