

Name \_\_\_\_\_ period \_\_\_\_\_ date \_\_\_\_\_

### Energy Roles Worksheet

Identify each of the following as a producer, consumer, or decomposer. If it is a consumer, also identify it as an herbivore, omnivore, carnivore, or scavenger.

- |                |           |
|----------------|-----------|
| 1. Human       | 1. _____  |
| 2. Deer        | 2. _____  |
| 3. Pine Tree   | 3. _____  |
| 4. Bear        | 4. _____  |
| 5. Rabbit      | 5. _____  |
| 6. Bacteria    | 6. _____  |
| 7. Mouse       | 7. _____  |
| 8. Snake       | 8. _____  |
| 9. Wheat       | 9. _____  |
| 10. Fly maggot | 10. _____ |
| 11. Grass      | 11. _____ |
| 12. Hawk       | 12. _____ |
| 13. Sparrow    | 13. _____ |
| 14. Frog       | 14. _____ |
| 15. Algae      | 15. _____ |
| 16. Trout      | 16. _____ |
| 17. Mushroom   | 17. _____ |
| 18. Owl        | 18. _____ |
| 19. Maple Tree | 19. _____ |
| 20. Worm       | 20. _____ |
| 21. Daisy      | 21. _____ |
| 22. Goat       | 22. _____ |
| 23. Cow        | 23. _____ |
| 24. Dandelion  | 24. _____ |

**Answer each of the questions completely.**

1. Name the three energy roles of organisms in an ecosystem. How does each type of organism obtain energy?
2. How much energy flows from one level to another in the food chain or food pyramid?
3. Name the four types of consumers.
4. What is the source of energy for most ecosystems?
5. Why are food webs a more realistic way of portraying ecosystems than food chains?
6. What is an energy pyramid?
7. What is the difference between biotic and abiotic factors?
8. Name important abiotic factors that exist in most ecosystems.
9. What does a decomposer do?
10. What is an herbivore?
11. What is a carnivore?
12. What is a scavenger?
13. What is an omnivore?

Below are several food chains. Use the list of organisms provided for each food chain and place these organisms in order according to the flow of energy. Begin with energy coming to Earth. The path should go from the original source to the last organism to use the energy. Each of the items in the list should only be used once.

14. Hawk, Bunny Rabbit, Sun, Lettuce

\_\_\_\_\_ → \_\_\_\_\_ → \_\_\_\_\_ → \_\_\_\_\_

15. Snake, Rat, Seed, Sun, Eagle

\_\_\_\_\_ → \_\_\_\_\_ → \_\_\_\_\_ → \_\_\_\_\_ → \_\_\_\_\_

16. Shrubs, Sun, Mountain Lion, Deer

\_\_\_\_\_ → \_\_\_\_\_ → \_\_\_\_\_ → \_\_\_\_\_

17. Draw a food chain containing the sun, a hawk, grass, and a mouse. Show the amount of energy each organism receives if you started with 1000 units.