

STUDY GUIDE

BIOTIC RELATIONSHIPS

Complete the sentence.

- The relationship between species that are in close physical contact is called _____.
- When two organisms benefit from living together, the relationship between them is called _____.
- When one organism takes nourishment from another, the relationship between them is called _____.
- A _____ takes nourishment from its _____.
- When one species benefits and a second species does not seem to benefit or be harmed, the relationship between them is called _____.

Choose the category of symbiosis that is exhibited by each pair of organisms.

- _____ termites; protozoans
- _____ fungi; corn smut
- _____ whales; barnacles

Match the term on the left with its definition on the right.

- | | | |
|-------------------|-------|--|
| a. carnivore | _____ | 9. an organism that makes food |
| b. consumer | _____ | 10. an organism that eats both plants and animals |
| c. decomposer | _____ | 11. a plant eater |
| d. food chain | _____ | 12. a relationship among organisms in which each is linked to another that it eats, absorbs, or decomposes |
| e. food web | _____ | 13. an organism that eats mostly animals |
| f. herbivore | _____ | 14. the different levels of producers and consumers in a food chain |
| g. omnivore | _____ | 15. an organism that feeds on other organisms |
| h. producer | _____ | 16. a network of interconnected food chains |
| i. trophic levels | _____ | 17. an organism that breaks down dead organisms and wastes |

Complete the following chart.

Trophic Level	Type of Organism	Example
first level	18.	plants
19.	primary consumer	20.
third level	21.	carnivores or omnivores

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Choose the word or phrase from the list below that completes the following sentences.

chemical
decreases
energy

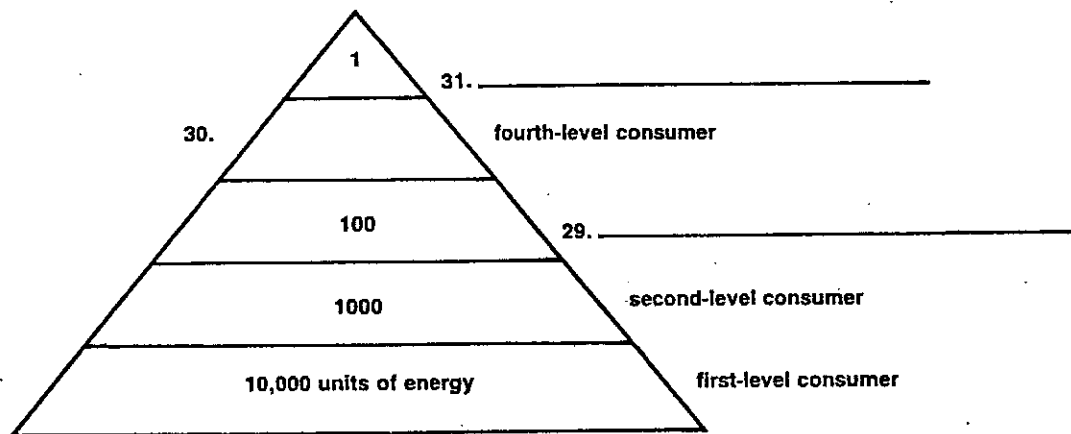
food
links
matter

organisms
pyramids
solar

Thermodynamics
trophic level
usable

22. _____ is recycled in an ecosystem but _____ is not.
23. _____ energy is collected and converted into _____ energy by producers.
24. The Second Law of _____ governs energy transfer.
25. _____ within an ecosystem require a constant supply of _____ to maintain their life processes.
26. The amount of _____ energy in an ecosystem _____ with higher trophic levels.
27. Energy _____ are wider at the base than at the top.
28. The amount of energy available at each _____ is directly related to the number of _____ in a food chain.

Complete the following pyramid of energy.



On the blank write T for true or F for false.

32. _____ Competition among organisms affects the size of a population.
33. _____ Competition cannot occur between different species.
34. _____ Two species of birds can inhabit the same type of tree if they use different food sources.
35. _____ Predation does not limit the size of predator and prey populations.
36. _____ The organism a predator captures is its prey.
37. _____ If there are more predators than prey, the populations of both species may decrease in number.