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***Ecology***

1. What is ecology?

2. Define ecosystems & give an example.

3. What is a community?

4. What is a population?

5. What are biotic factors & list them?

6. What are abiotic factors & list them?

7. Are abiotic factors constant? Explain by giving an example.

8. Define niche

***Populations***

9. What is meant by population size?

10. What is meant by population density?

11. Name the 4 processes that determine whether a population will grow, shrink, or remain the same size.

12. What are immigration & emigration & how do they affect population size?

13. What are limiting factors & give some examples?

***Community Ecology***

14. Interactions among species are called \_\_\_\_\_\_\_\_\_\_\_\_.

15. List the types of symbioses.

16. Define predator & prey & give an example.

17. What is mimicry & give an example?

18. Define these terms --- parasitism, parasite, host, ectoparasites, & endoparasites.

19. When niches overlap, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ results so more than one species are using the limited resources.

20. What are mutualism & commensalism?

***Ecosystems***

21. What are producers & what is another name they may be called?

22. What is biomass, why is it important, how does it accumulate, & what is its rate of accumulation called?

23. What is gross primary productivity?

24. All heterotrophs would be \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

25. Define & give an example of each of these consumers --- herbivore, carnivore, omnivore, detritivores, & decomposer.

26. Whenever one organism eats another, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is transferred.

27. What are trophic levels?

28. What is a food chain & what always begins the chain?

29. Write an example of a food chain.

30. What is a food web?

31. Draw a diagram of a food web that has at least 4 food chains.

32. Approximately \_\_\_\_\_\_\_\_\_\_ percent of the total energy consumed at one trophic level is incorporated into the organisms in the next level.

33. In terms of energy passage, why will there be many more producers than herbivores and fewer large carnivores than small carnivores?

34. What 2 processes form the basis for the carbon cycle?

35. Organisms such as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ convert \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ gas into compounds  
called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ during the process known as\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Food Chain Questions

1. What travels through a food chain or web?
2. What is the ultimate energy for all life on Earth?
3. Food chains start with what?
4. The 1st organism in a food chain must always be what type of organism?
5. Define herbivore.
6. What are animals called that feed on herbivores?
7. Secondary consumers are eaten by larger \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
8. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ consumers eat secondary consumers.

Food Web Questions

1. Define food web
2. What is used to indicate the flow of energy in a food chain or web?
3. What happens to energy as we move from step to step in a chain or web?
4. What is meant by trophic levels?
5. Define autotroph.
6. Secondary consumers may be \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ eating meat or \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ that eat both plants and animals.
7. What organism feeds on dead plants and animals and helps recycle them?
8. Give an example of 3 detrivores. On what do they feed?
9. Both \_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_act as decomposers
10. Can an organism fill more than one trophic level --- yes or no? Give an example.
11. In food chains and webs, what trophic level must you have more of than others?
12. Each trophic level has how much LESS energy?