

## **REVIEW - CH. 2 ECOLOGY**

1. What is the difference between biotic and abiotic factors in the environment? give examples of each.
2. What is the difference between *ecology* and an *ecosystem*?
3. List the 5 levels of ecological organization from smallest to largest. Then give a brief description of each.
4. What is the difference between an autotroph and a heterotroph?
5. Why do autotrophs always occupy the lowest level of ecological pyramids?
6. Briefly describe the different types of heterotrophs:
  - Herbivore -
  - Carnivore -
  - Omnivore -
  - Scavenger -
  - Decomposer -
7. What is the difference between a producer and a consumer?
8. What is the difference between a food chain and a food web?
9. What is the difference between a niche and a habitat?
10. How many species can usually occupy a niche without competing? \_\_\_\_\_
11. How is it possible for competing species to occupy a niche at the same time?
12. What is the most common element in all living things? \_\_\_\_\_
13. What is a trophic level?

14. What happens to the energy that is not passed on to the next trophic level?

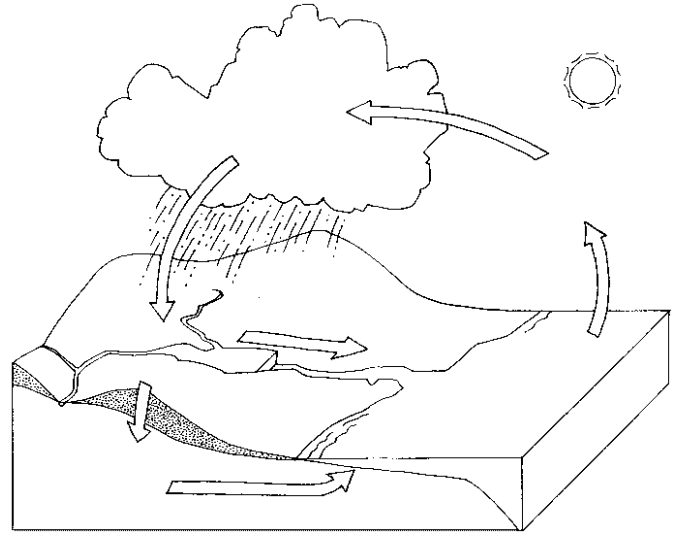
15. Look at figure 2.16 (pg 53), how much energy is passed onto the next trophic level from the one below it?

16. How many trophic levels on average do ecosystems have?

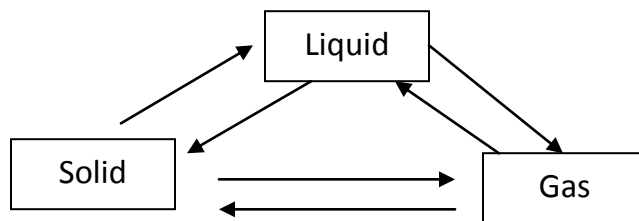
17. **Fill in the blanks** of the water cycle

a. Scientific name for water cycle:

\_\_\_\_\_



18. Fill in the following process:



19. Distinguish between:

Primary succession

Pioneer species

lichen

Secondary succession

Eutrophication

Climax community.

20. What is predation? Explain each component.

21. Distinguish between the following terms:

Competition

Mutualism

Commensalism

Parasitism

Amensalism

Allelopathy

22. Carbon cycle:

- a. What type of compounds/molecules does carbon form the framework for?
- b. How do *plants* obtain carbon? Can they get it from the air?
- c. What is carbon used for in plants and in animals?

23. Nitrogen cycle:

- a. What does nitrogen fertilizer do to plants?
- b. How do *plants* obtain nitrogen? Can they get it from the air?
- c. What is nitrogen used for in plants and in animals?
- d. How does the *soil* obtain nitrogen?

24. Phosphorus cycle:

- a. What is phosphorus used for in organisms?
- b. How do *plants* obtain phosphorus?
- c. How do *animals* obtain phosphorus?
- d. How does the *soil* obtain phosphorus?