Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_\_\_

**ECOLOGY STUDY GUIDE**

1. Define *population –*

2. Define *habitat –*

3. Define *ecosystem –*

4. What is the difference between primary succession and secondary succession?

5. Summarize the water cycle.

6. Define *population density –*

7. Draw the three types of population dispersion.

8. Define *carrying capacity* –

9. Draw an exponential growth graph: Draw a logistic growth graph:

10. Provide 2 examples of both logistic and exponential growth.

11. Compare/contrast density-dependent factors and density-independent factors and give examples of each.

12. What prevents populations from growing exponentially?

13. Define *keystone predator –*

14. Define *Primary Succession*  and provide an example.

15. Define *Secondary Succession* and provide an example.

16. Nearly all energy comes from the \_\_\_\_\_\_\_\_\_.

17. What happens from one level of the food chain to the next?

18. If you start with 1,000 kcal of energy with the producers, what energy would you have at each level of the food chain?

Producer Primary consumer Secondary Consumer

1,000 kcal \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

19. What is the difference between the flow of energy and the flow of chemical nutrients?

20. Define *community –*

21. What are the four properties of a community?

23. Define *niche –*

24. Define *competitive exclusion –*

25. What organisms are the main decomposers in a terrestrial ecosystem?

26. Describe a commensalistic relationship. Give an example.

27. Describe a mutualistic relationship. Give an example.

28. Describe parasitic relationship. Give an example.

29. Think of an aquarium with some goldfish, tetras, snails, and some water plants. Using this situation, answer the following questions:

An example of a population:

List the members of the community:

What is the habitat?

List the abiotic components of this ecosystem:

30. Why are food chains limited to 4 (at most) organisms?

31. Fill out the table below and put a +if the impact is beneficial, - if the impact is harmful, and 0 if there is no impact.

|  |  |  |
| --- | --- | --- |
|  | **Organism 1** | **Organism 2** |
| Commensalism |  |  |
| Parasitism |  |  |
| Mutualism |  |  |

32. Where did coal and natural gas come from?

33. What is released when fossil fuels are burned? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

34. Food Webs and Food Chains



*Describe if the organism is a producer, herbivore, carnivore, or omnivore.*

Deer – Berries and flowers -

Grasses – Grizzly bear -

Grouse – Deer -

Red-tailed hawk - Marmot –

*Draw a food chain from the above food web. Label if the organism is a producer, primary, secondary, or tertiary consumer.*