

Ecology Quiz A**/20****Matching /10***Chose the best response for each statement, not all words will be used.*

- | | |
|-------------------------------|-----------------------------|
| a. mutualism | h. decomposers |
| b. pioneer species | i. producers |
| c. density independent factor | j. parasitism |
| d. consumers | k. symbiosis |
| e. commensalism | l. climax community |
| f. steady state | m. density dependent factor |
| g. carrying capacity | n. secondary succession |

- __C__** 1. The effect a volcano has on a population
- __K__** 2. When two organisms of different species have a relationship
- __D__** 3. Organisms that acquire energy from other organisms
- __G__** 4. Maximum number of individuals of a population that can be sustained by an ecosystem
- __M__** 5. The effect competition has on a population
- __I__** 6. Organisms that use the sun's energy
- __E__** 7. A relationship between species that is beneficial to one and neutral to the other
- __L__** 8. The final stage of succession
- __F__** 9. When the growth rate of a population averages to zero
- __B__** 10. The first organisms to become established in a disturbed ecosystem

Short Answer /10

- /3 1. Describe the stages of primary succession in land environments, mentioning the role played by grasses, lichens and trees.
- **Lichens appear, they do not require soil and are able to live on bare rock**
 - **Lichens break down and decompose over several generations and create a thin layer of soil**
 - **Grasses appear and are able to live in the thin layer of soil**
 - **Grasses break down and decompose over several generations to create a deeper soil level**
 - **Trees are able to appear when the soil has become deep enough, and the ecosystem moves towards a climax community**

Name:

Date:

Block:

/2 2. Explain why only a portion of energy is passed on the next trophic level.

- **Only 10% of all energy is passed to the next trophic level**
- **Due to energy being consumed and lost because not all producers are used by primary consumers, not all primary consumers used by secondary consumers, etc.**

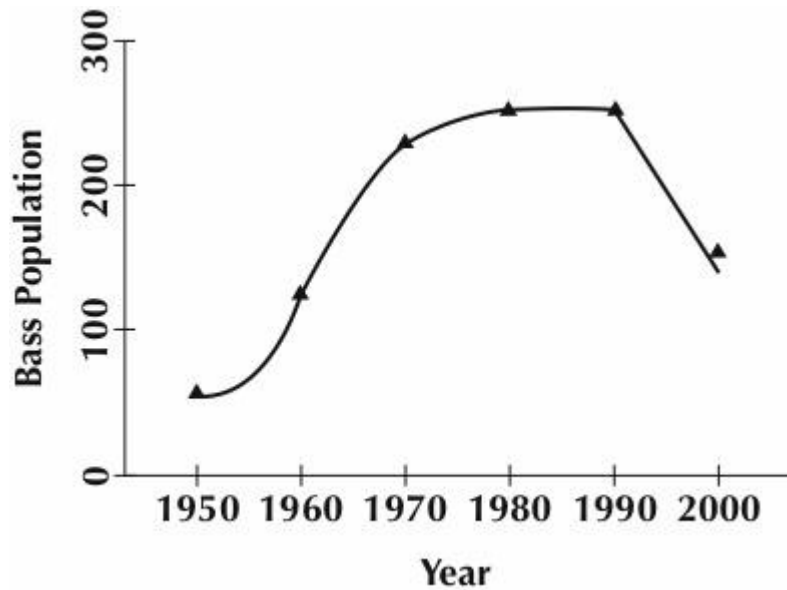


Figure 5-7

- /3
3. The graph in Figure 5-7 shows the changes in population of bass fish in a lake. Describe the trend in population growth from 1950 to 1990. Give an example of something that may have happened in 1990 that affected the bass population. Explain your reasoning.
- **Logistic growth curve/exponential curve followed by steady state**
 - **Introduction of predator or natural disaster**
 - **Because it is such a steep drop, there is a rapid decline in population**
 - **This has to be because of something that was not previously part of the ecosystem, or else it would have reached a steady state/equilibrium with the ecosystem**
- /2
4. Explain how predator and prey populations limit each other's growth rates.
- **an increase in predator population would limit prey population and cause it to decline, declining prey population would cause the predator population to decline due to lack of resources. After a decline in predator populations, prey population would be able to increase.**