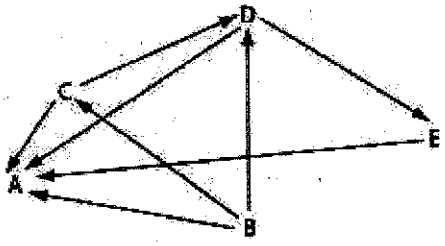
ECOSYSTEMS STUDY GUIDE

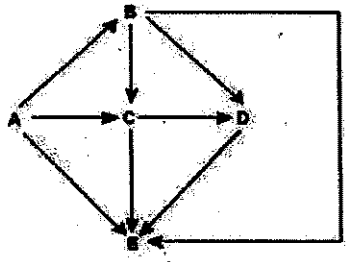
Advanced Biology

This study guide is meant to be a review over concepts taught and applications practiced. Your test may be a few knowledge/comprehension but the majority will be application/analysis and synthesis/evaluation questions.

1. You are responsible for the terms on the "Ecology Pre-assessment".
2. 

B - Producers
C - Primary Consumer, herbivore
D - Primary Consumer, Secondary Consumer omnivore
E - Secondary Consumer, Carnivore
A - Decomposers or Detritivores

Using the food web above, identify producers, primary consumers.

3. 

A - Producers
B - Herbivore
C. Omnivore
D. - Carnivore
E - Detritivore, decomposer

Using the food web above, identify producers, herbivores, omnivores, carnivores, decomposers.

4. What are the parts of an ecosystem? Abiotic factors (nonliving) sunlight. rocks, soil, water Biotic factors (living) organisms
5. In a pyramid of energy, how much energy does the next higher feeding level receive? 10% How much energy is used or lost as heat? 90%
6. In a pyramid of energy, how many organisms does the next higher feeding level have? 10% of the previous level
7. What is a trophic level? position or level the organism occupies in a food chain.
   a. Which trophic level are the following organisms found in?
      i. Producers: 1st level
      ii. Herbivores: 2nd level
      iii. Carnivores/Omnivores: 3rd level, 4th level

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8. What is symbiosis: Interaction between two different organisms living in a close relationship.

9. What are the three types of symbiosis? Be able to recognize an example of each.

   a. Mutualism: (+/+) Both organisms benefit Flower and a bee

   b. Commensalism: (+/0) One organism benefits, the other is neither helped or harmed. Cattle egrets and bison

   c. Parasitism: (+/-) One organism benefits, the other is harmed. Tapeworm and dog.

10. Compare and contrast the terms fundamental niche and realized niche. Fundamental niche is the niche an organism can potentially occupy. Realized niche is the niche an organism actually occupies.

11. What happens to a food chain when you remove one of the organisms? (How will it affect the organisms it feeds on and the organisms that feed on it?) If you remove an organism from a food chain, there will be more of the organisms that it feeds on. The organisms that feed on the removed organism will have a loss of food supply and therefore there will be more competition for food.