

Science 9 Ecosystem Exam Review

You are responsible for the following vocabulary terms:

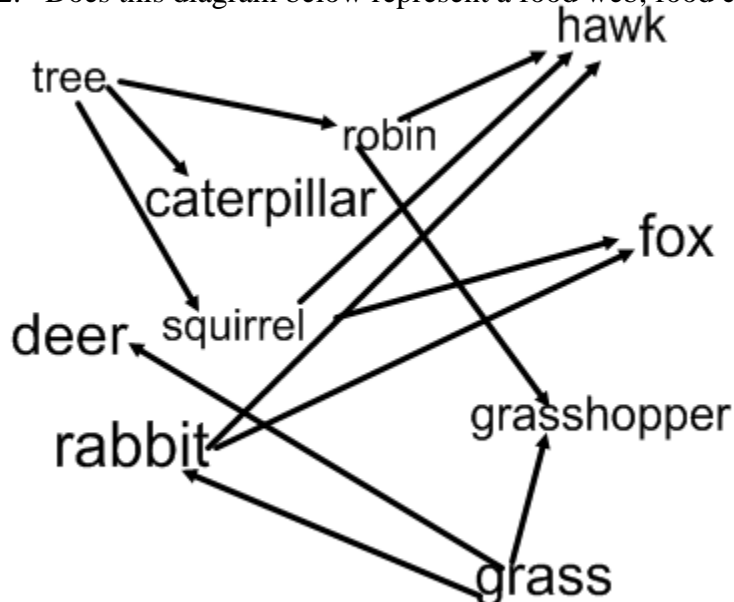
Abiotic	Ecosystem	Food pyramid
Biotic	Omnivore	Primary consumer
Heterotroph	Carnivore	Secondary consumer
Decomposer	Herbivore	Exotic species
Consumer	Habitat	Ecotone
Autotroph	Niche	Detritus
Producer	Organism	biodiversity
Population	Ecology	
Community	Trophic level	

Questions to answer:

1. For each of the following descriptions about animals state if it is
 - a. Endangered
 - b. Extinct
 - c. Extirpated
 - d. Threatened
 - e. Vulnerable

- i. Dinosaurs are no longer found anywhere
- ii. The grey fox is at risk because of low or declining numbers
- iii. The grizzly bear is no longer found in Manitoba and Saskatchewan, but is still found in Alberta and BC
- iv. The piping plover is likely to become endangered if factors that ensure its survival are not improved
- v. The whooping crane is close to extinction in all parts of Canada or a significantly large location

2. Does this diagram below represent a food web, food chain or food pyramid?



- b. Name one animal that fits each of these categories

- i. producer
- ii. Secondary consumer
- iii. Herbivore
- iv. Primary consumer

- c. If the tree was removed from this diagram what other organisms would be effected and in what ways?

- d. If there were an increase in the number of foxes, explain how would it affect the other organisms?

3. For each of the following
 - a. Draw the pyramid
 - b. Label the type of pyramid (numbers, biomass, energy)

- i. 400 trees, 10 000 aphids, 5590 ladybugs, 7 birds.
- ii. phytoplankton 31080 kJ , zooplankton 7880 kJ, small fish 1280 kJ, large fish 128 kJ
- iii. bird 10g, grass 400g, grasshopper 50 g

For each of the following fill in the blanks provided:

1. _____ describes the relationship among the many species living in an environment and the relationships among those organisms and the non-living components of the environment.
2. A _____ is a step-by-step sequence linking organisms that feed on each other.
3. _____ are animals that eat plants.
4. _____ are animals that feed on other animals.
5. _____ are animals that eat animals and plants.
6. The waste from plants and animals, including their dead remains is called _____.
7. A _____ is an organism that breaks down detritus to get nutrients for their own use.
8. If the population of frogs decreases, the number of insects would _____.

9. If the population of frogs decreases, the number of herons would _____.
10. An example of a producer would be: _____.
11. An example of a consumer would be: _____.
12. A _____ is the place where a species lives.
13. The frog is a good indicator animal because of its _____ and it lives in different _____.
14. When a species is no longer found anywhere: _____.
15. A species that is close to extinction in all parts of Canada or in a significantly large location: _____.
16. Any species that no longer exists in one part of Canada, but can be found in others: _____.
17. Any species that is likely to become endangered if factors that make it vulnerable are not reversed: _____.
18. Any species that is at risk because of low or declining numbers at the fringe of its range or in some restricted area: _____.
19. The number of species in an ecosystem is the _____.
20. An example of an extinct species is a _____.
21. The study of the interaction of living things with each other and the abiotic factors in the environment is called _____.
22. Factors in the ecosystem created by non-living agents are called _____.
23. Two abiotic factors would be: _____.
24. Factors in the ecosystem created by the presence and roles of other living things are called _____.
25. Two biotic factors would be: _____.
26. All of the members of a species living in the same ecosystem or habitat are called a _____.
27. The collection of all the populations of all the species in an ecosystem is called a _____.
28. The transition area between two ecosystems that includes members of the community of both ecosystems is called an _____.
29. An _____ ecosystem is planned or maintained by humans.
30. A _____ ecosystem is free to interact with the physical and chemical environment.
31. A way of categorizing living things according to how they gain energy is called the _____.
32. An organism that uses energy and raw materials to make its own food is an _____.
33. An organism that is incapable of making its own food and must feed on other organism to get energy is called a _____.
34. A pictorial representation of the feeding relationship among organisms in an ecosystem _____.
35. In a food chain or food web, an organism relies on autotrophs directly for its source of energy is called a _____.
36. In a food chain or a food web, an organism that relies on primary consumers for its principal source of energy is called a _____.
37. This law states that although energy can be changed from one form to another, it can not be created or destroyed: _____.
38. This law states that during any energy transformation, some energy is converted into an unusable form such as heat: _____.
39. Pyramids graphs come in three forms which are: _____.
40. The organism's place in the food web, its habitat, breeding area and the time of day that it is most active is called its _____.
41. A new species that is introduced to a new ecosystem is called an _____.
42. Explain in detail how each of the following factors could lead to extinction of a species:
 - a. Overhunting by humans
 - b. Pollution
 - c. Competition of a new species
 - d. Climate change
 - e. Poor reproductive success