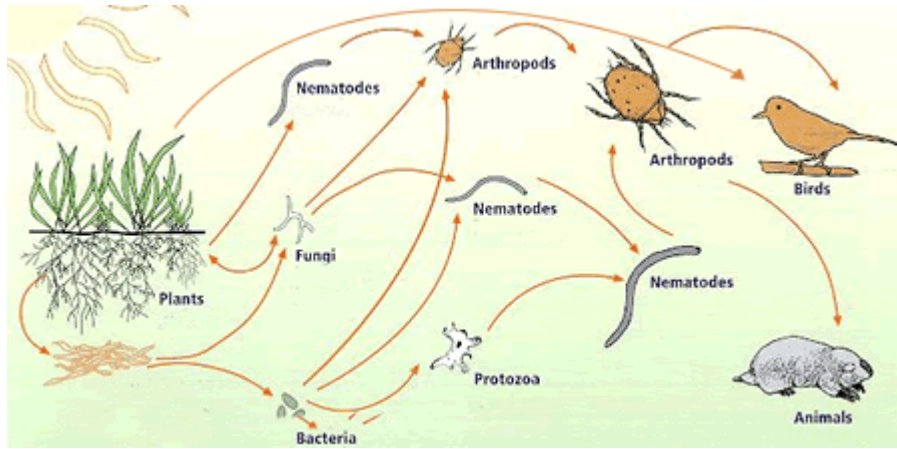


PL - use a food web to demonstrate that matter is transferred from one organism to another and that matter can be recycled between organisms and their environments; explain how environmental conditions can affect the survival of both individuals and entire species; DL - predict the impact of changes to a food web
Do not write on this quiz.



1. How do you think the food web above would be affected if the plants were eliminated?

- A) Only the fungi would survive.
- B) Birds and nematodes would thrive.
- C) The food web would completely collapse.
- D) The food web would produce more bacteria to compensate.

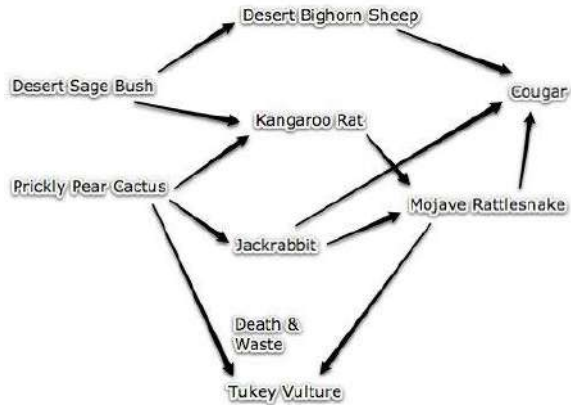
2. Which statement BEST describes a relationship between the organisms in the food web shown above?

- A) If the arthropod population decreases, the bird population will decrease.
- B) If the arthropod population decreases, the animal population will increase.
- C) If the plant population decreases, the nematode population will increase.
- D) If the nematode population increases, the arthropod population will decrease.

In any ecosystem, land-based and aquatic, matter, in the form of atoms and molecules, is cycled among all organisms. Organisms within every food web, have specific roles in continuing the cycle of nutrients.

3. In any food web, the organisms that are responsible for converting raw energy into usable chemical energy are collectively called _____ while organisms that recycle the nutrients trapped in dead organisms are collectively called

- A) producers; consumers.
- B) producers; decomposers.
- C) heterotrophs; consumers.
- D) heterotrophs; autotrophs.

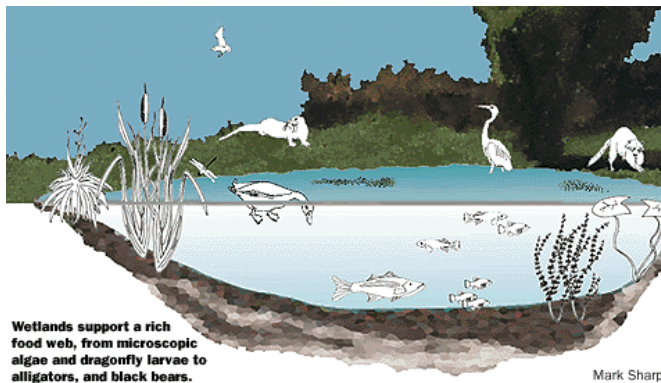


4. Review the desert food web above. What organism, absent in the web, would be **MOST** responsible for recycling organic matter back through the food web?

- A) cougars
- B) bacteria
- C) sage brush
- D) cactus plants

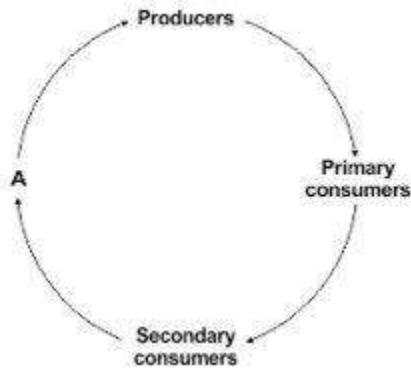
5. In the food web above, if the prickly pear cactus were removed, which organism would be **MOST or IMMEDIATELY** affected by the lack of available matter?

- A) cougars
- B) kangaroo rat
- C) jackrabbit
- D) desert bighorn sheep



6. Hunters have greatly reduced the duck population visiting and living around this wetland. We would expect to see an increase in the _____ population as a result of the hunting.

- A) bear
- B) fish
- C) plant
- D) Raccoon



7. In order for matter to recycle and return in the food chain shown here, what **must** be present at level A?

- A) Producers
- B) Decomposers
- C) Tertiary consumers
- D) Secondary consumers

8. What happens to any matter that is not used by consumers in a food chain?

- A) It remains unconsumed forever.
- B) It is stored by all consumers for use in the future.
- C) It is recycled by producers and brought back into the food chain later.
- D) It is decomposed by decomposers and brought back into the food chain later.

A species of rabbit lives in a meadow where grass plants are readily available during summer months. The rabbits do not stray far from the meadow because the plants supply food and protection from predators. One summer, a fire destroys the plants in the meadow.

9. As a result of the absence of plants in the meadow, the rabbit population will probably

- A) decrease in size.
- B) increase and flourish.
- C) increase reproduction.
- D) switch to a different type of food.

10. In any ecosystem, decomposers are important for all **BUT** one of the following.

- A) They are important in keeping the nitrogen cycle going.
- B) They produce most of the food that the ecosystem relies on.
- C) They are important in the carbon cycle, in releasing carbon from dead organisms.
- D) Every other organism in the ecosystem is at least indirectly dependent upon them.