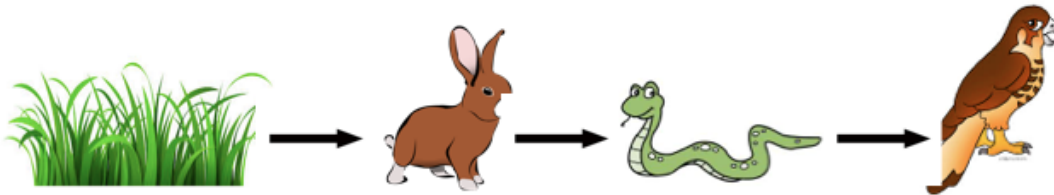


5th Grade Food Web/Chain and Energy Quiz

Population Change

1) If a disease strikes the snake population in the food chain shown, what will happen to the populations of hawks?



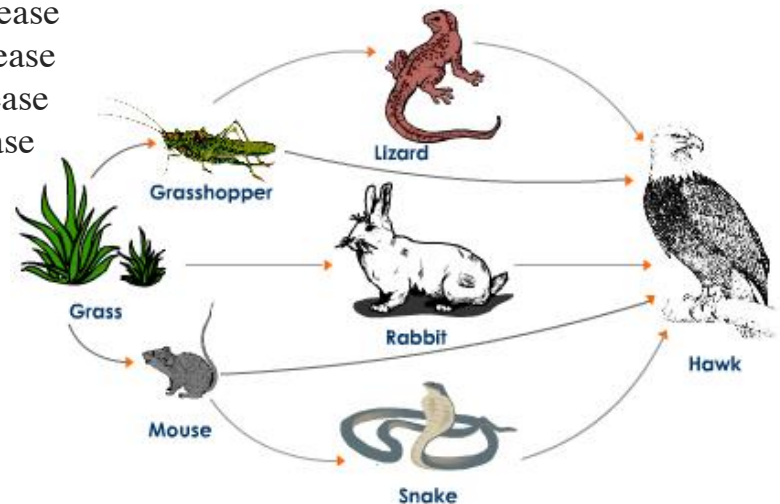
- A. The population of hawks would decrease
- B. The population of hawks would increase
- C. The population of hawks would stay the same.

2) When the population of organisms in an ecosystem is in balance, we consider the ecosystem to be:

- A. The ecosystem is in succession
- B. The ecosystem is in equilibrium
- C. The ecosystem is not balanced
- D. The ecosystem is endangered

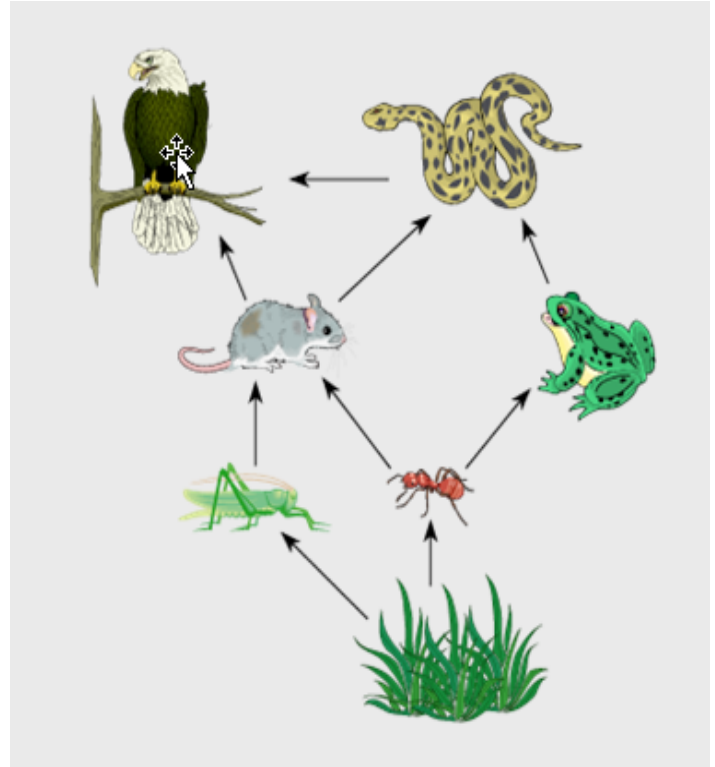
3) In the food web, if the population of grasshoppers increased, what would be a result?

- A. The population of rabbits would decrease
- B. The population of lizards would decrease
- C. The population of snakes would increase
- D. The population of grass would decrease



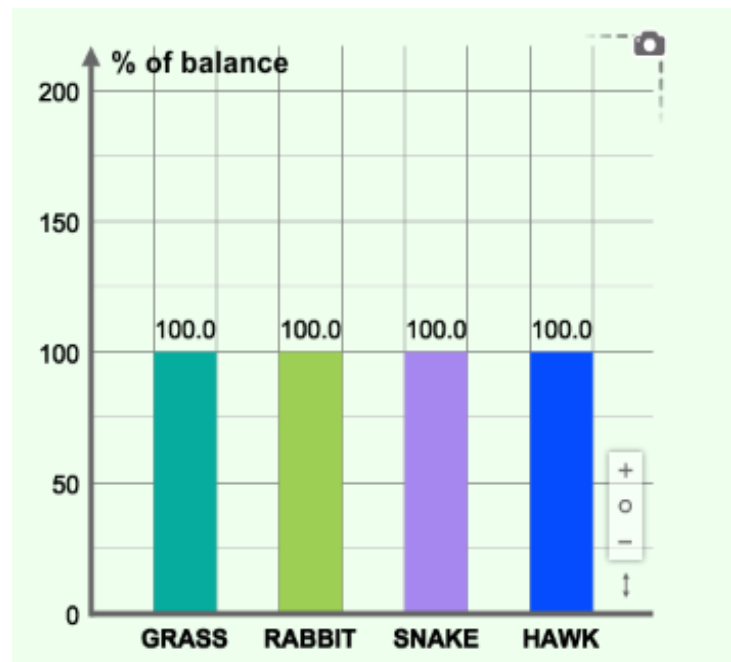
4) Trapping and hunting has greatly reduced the population of snakes. What is the most likely effect of this change in the ecosystem?

- A. The population of frogs will increase
- B. The population of mice will decrease
- C. The population of ants will increase
- D. The population of frogs will decrease



5) The populations of organisms shown in the graph below show that the ecosystem is:

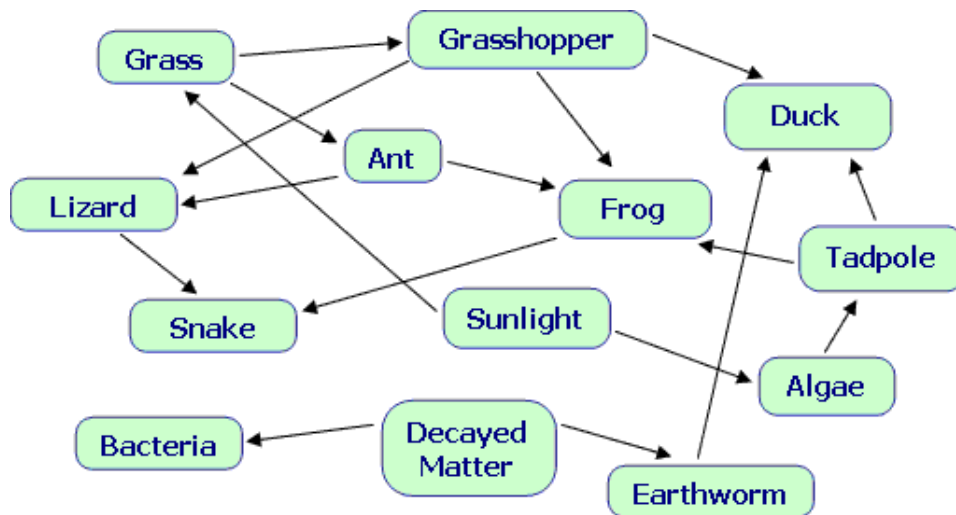
- A. The ecosystem is in succession
- B. The ecosystem is not balanced
- C. The ecosystem is in equilibrium
- D. The ecosystem is endangered



Food Webs and Food Chains

- 6) What is the difference between a food chain and a food web?
- A. A food chain is larger than a food web
 - B. A food chain is the combination of all the food webs in an ecosystem
 - C. A food web is smaller than a food chain
 - D. A food web is the combination of all the food chains in an ecosystem

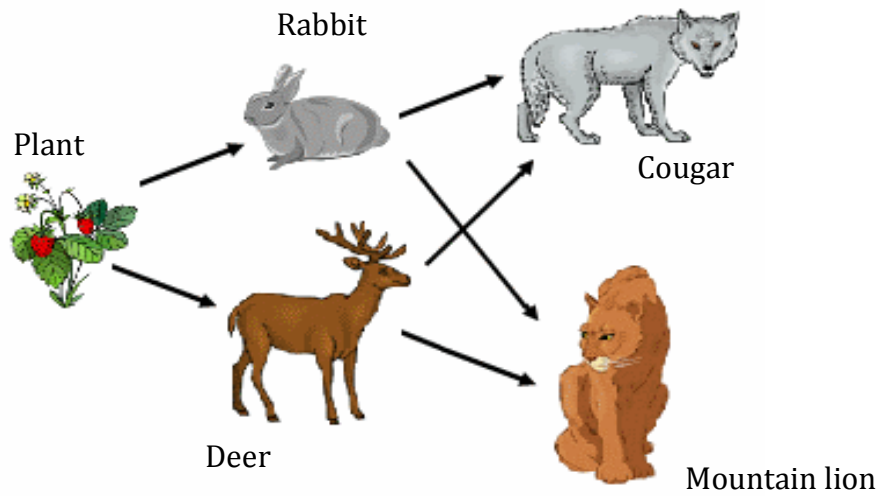
Use the food web to answer Questions #7 and #8



- 7) Identify the predator of the frog.
- A. Ant
 - B. Tadpole
 - C. Lizard
 - D. Snake
- 8) Which organism does the lizard consume (eat)? (Mark all that apply!)
- A. Grasshopper
 - B. Ant
 - C. Snake
 - D. Grass

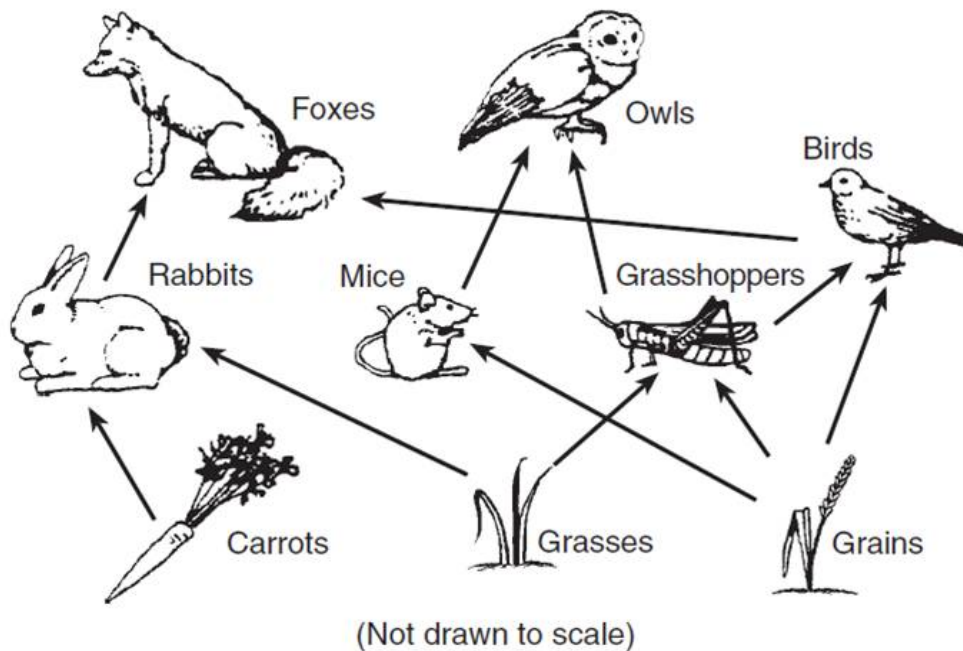
9) Which choice correctly explains the path of energy through the food web?

- A. wolf → plant → deer
- B. plant → rabbit → deer
- C. plant → rabbit → cougar
- D. cougar → rabbit → wolf



10) Which of the following is a food chain located *within* the food web below? (Trace the flow of energy to find the correct choice!)

- A. Carrots → Rabbits → Owls
- B. Grasses → Grasshoppers → Birds → Foxes
- C. Grains → Grasshoppers → Birds → Owls
- D. Grasses → Grasshoppers → Mice → Owls



Write Your Answer to #11 in the Answer Document.

11) Constructed Response (4 points): Use the information in the chart below to draw a food web. Be sure your arrows are pointing in the correct direction!

Organism	Where it gets its energy:
Grass	Plant that uses sunlight to make its own food
Grizzly Bear	Consumes weasels, rabbits and berries
Berries	Plant that uses sunlight to make its own food
Mouse	Consumes berries
Weasel	Consumes mice and rabbits
Snake	Consumes mice and rabbits

Trophic Levels

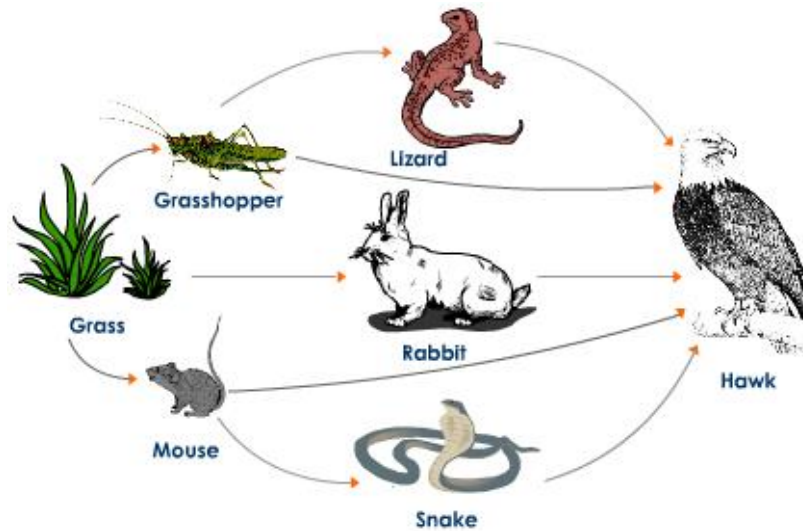
12) _____ flows through a food web/chain and powers each organism at every trophic level.

- A. Nitrogen
- B. Energy
- C. Carbon Dioxide
- D. Photosynthesis

13) Many organisms have multiple words to describe their role in an ecosystem. Which three terms correctly describes a **primary consumer**?

- A. Primary consumers are abiotic, carnivores and predators
- B. Primary consumers are biotic, herbivores and often prey of larger animals
- C. Primary consumers are biotic, carnivores and often prey of larger animals
- D. Primary consumers are abiotic, omnivores and consumers

Use the diagram below to answer Questions #14, #15 and #16



14) In the food web diagram which **TWO** organisms are secondary consumers?

- A. Rabbit, Snake
- B. Hawk, Grasshopper
- C. Lizard, Snake
- D. Hawk, Lizard

15) In the food web above, the mouse and grasshopper are identified as:

- A. Primary Consumers
- B. Secondary Consumers
- C. Top Consumers
- D. Producers

16) Identify a top consumer from the food web.

- A. Hawk
- B. Mouse
- C. Snake
- D. Lizard

Write Your Answer to #17 in the Answer Document.

17. Constructed Response (3 pts.): Use the following organisms below to construct a food chain. Then **LABEL** each organism using the “secret code” of the four trophic levels.

S = Sun

P = Producer

PC = Primary Consumer

SC = Secondary Consumer

TC = Top-Level Consumer

Caterpillar, Lizard, Sun, Plant, Coyote