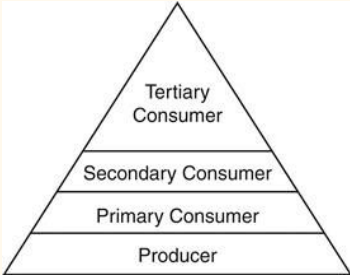


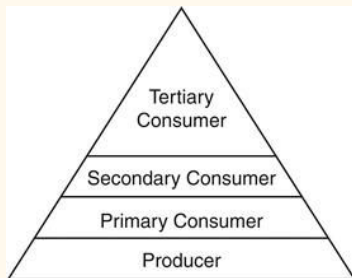
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6TH GRADE Science

Study Guide for Ecosystem Unit Test

1. Draw a food chain showing a mushroom as a decomposer.
2. What is the best way to describe the flow of energy in a cabbage plant?

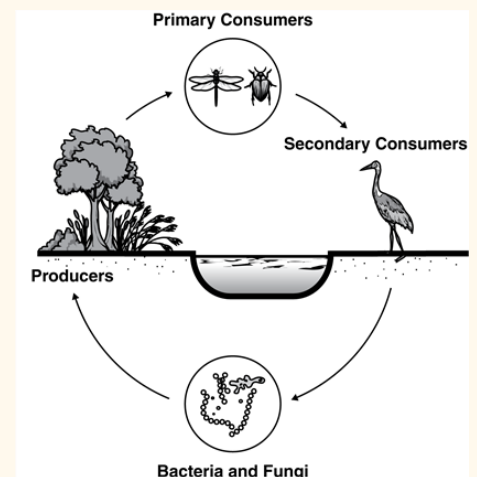
3.  Explain why producers are found at the bottom of the energy pyramid.



4. The diagram on the right is depicting a natural wetland habitat. What process is the diagram demonstrated?

Flow of _____

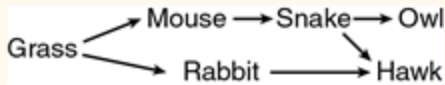
5. Define what a decomposer is. List examples of decomposers.



6. A marsh food chain is shown. According to the food chain, how would an increase in the toad population MOST likely affect the other populations

Grass → Grasshopper → Toad → Snake → Hawk

7. The diagram below shows a partial terrestrial food web. Based on the diagram, which of the following would MOST likely happen if a disease caused the snake population to decrease?



8. plant — grasshopper — frog — snake

Grasshoppers need the plants to survive because grasshoppers

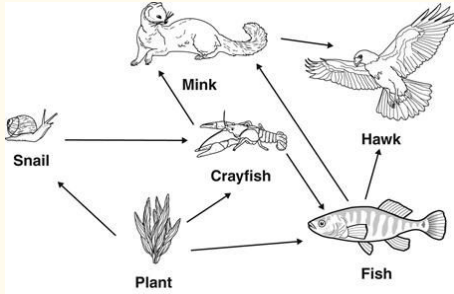
_____.

9. *Elodea* is a plant that grows under water. Martina used pieces of *Elodea* in test tubes of water to conduct an experiment. Her results are shown in the table below.

***Elodea* Experiment Data**

What question was she MOST likely trying to answer?

Test Tube Number	Bubbles Per Minute		
	Shade	40 W Lightbulb	Bright Sunlight
1	2	7	12
2	1	6	15
3	1	4	11

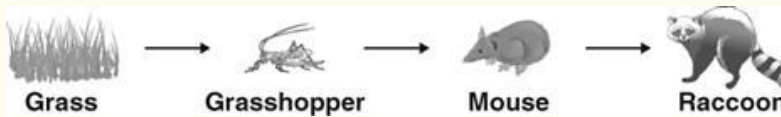


10. Which population would MOST likely increase if the crayfish population decreased?

decreased?

11. We went on a nature walk and saw a group of trees in a field. We noticed that all of the trees are the same height except for a few. What is MOST likely affecting the growth of the shorter trees?

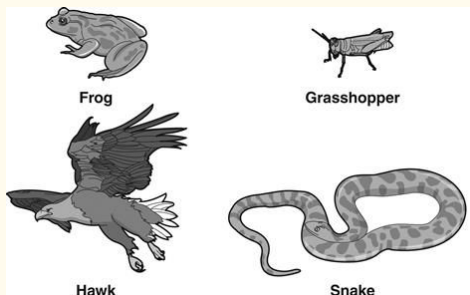
12.



Label each level of the above food chain.

13. What is the relationship between mass and solar energy in plants?

14.



How would energy MOST likely flow between the organisms.

15. Students kept some crickets in a classroom tank. The tank was kept in an area where it would get several hours of sunlight a day. The tank contained one area with water, and another area with soil where plants were growing. From which source did the crickets gain the energy they needed for cell processes? _____

16. In one area, a large source of prey for eagles is rabbits. If the number of rabbits suddenly decreases, what effect will it MOST likely have on the eagles?

17. When can producers make the MOST food? Why?

18. What is unique of the ocean waters? Freshwater does not have this characteristic.

19. Earthworms move randomly throughout topsoil. How do earthworms MOST likely affect the topsoil?

20. Bernice studied some organisms that live together in a field. In which way is a rabbit similar to the plant it eats?

21. Nicole was studying different ecosystems. She compared the number of plants living in a forest to those in a desert. Which factor BEST explains why more plants may survive in a forest? _____

22. What are the products of photosynthesis?

23. What level do you find phytoplankton?

24. What does abiotic mean? List some abiotic factors found in the environment.

25. Marshall learned that plants need a substance from the air to make their own food. What does a plant take from the air in the presence of sunlight? _____

26. When a plant wilts, the stomata close. How does this help the plant?

27. What is the source of fuels such as coal and natural gas? _____

28. Define the following:

Producer:

Herbivore:

Carnivore:

Omnivore:

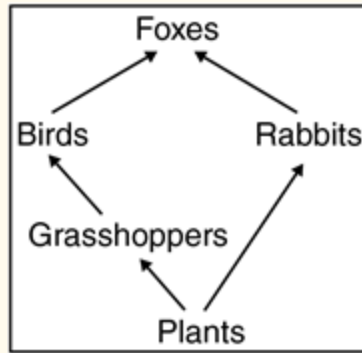
29. What is the original source of energy? ___ ___ ___

30. What do animals produce when they use energy? (Think of cellular respiration) _____

31. What does biotic mean?

32. Decayed prehistoric plants have helped in the formation of _____.

33. A farmer sprays insecticide on plants on the farm to kill the insects that are eating the crops. The food web shows some of the relationships between organisms on the farm. A farmer sprays



insecticide on plants on the farm to kill the insects that are eating the crops. The food web shows some of the relationships between organisms on the farm.

34. Sunflower leaves grow in positions that permit the maximum use of light. Because of this, what will one see while observing the plant over time? _____

35. Write the chemical equations for both photosynthesis and cellular respiration.

Photosynthesis:

Cellular Respiration:

