

Unit 5: Lesson 2- How does Energy Move Through Ecosystems?

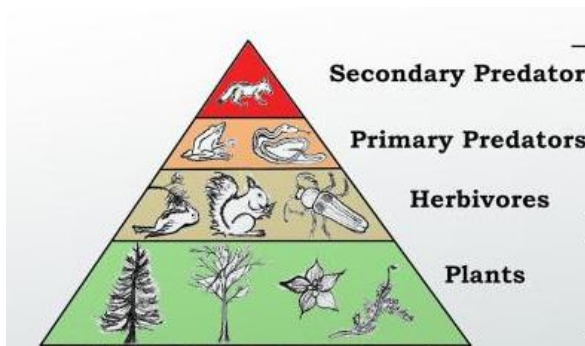
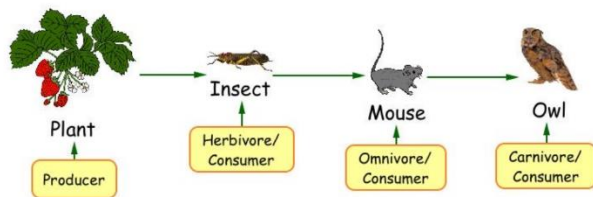
Vocabulary

1. Food Chain (page 219)-

2. Food Web (page 220)-

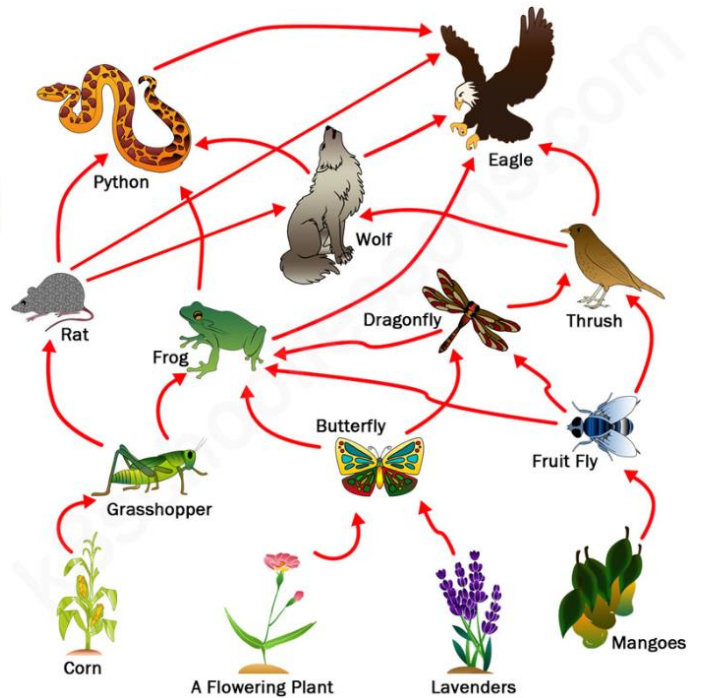
3. Energy Pyramid (page 222)-

The Food Chain Of An Owl



Energy Pyramid

A Food Web



Food Chains Pages 218-219

1. What are food chains?

2. What does every food chain start with? _____

3. Where do the producers get their energy from? _____

4. What is photosynthesis?

5. What happens to the food that is made in plants that is not used?

6. What are examples of producers that would be the first organism on any food chain?

7. What are first level consumers? Give 3 examples of first level consumers?

8. What are second level consumers? Give 3 examples of second level consumers?

9. What are third level consumers? Give an example of a third level consumer?

10. What is the final link of a food chain? _____

11. Where do decomposers get their energy from?

12. Look at the visual on page 218 and 219 in your textbook for questions #12-15. What is the initial source of energy for the plant in this food chain? (Where does the plant get its energy from?)

13. Which organism gets energy directly from the sun? _____

14. What do the arrows indicate?

15. How would you classify the gull and the fungi?

16. People are part of the food chains. What is the role of people in a food chain?

Food Webs Pages 220-221

17. What is a food web?

18. Look at the Food web on page 221 in your textbook for questions #18-28. What do both the mouse and insect eat? _____

19. What can a snake eat? _____

20. Which group of organisms do all living things eventually become food for? _____

21. What do the yellow arrows represent in a food web?

22. Find the acorn and the mouse. Which way does the arrow point to? Why?

23. What other organisms do the snakes eat? How do you know?

24. What do the blue arrows represent?

25. What type of organism are fungi? _____

26. What must happen in order for fungi to get food energy?

27. What would happen if you removed snakes from a forest food web?

28. What might happen to the hawk population if the number of mice decreased?

29. Why are decomposers so important to soil and plants?

30. What limits the number of animals below them on a food web? _____

31. All organisms in a food web are: _____

At the Top Pages 222-223

32. What is an energy pyramid?

33. Organisms in a layer of the pyramid feed on those in a: _____

34. Look at the diagram on pages 222-223 to answer questions #34-41. What are the producers in an Ocean Energy Pyramid?

35. Why are the producers, at the bottom, the most numerous group?

36. What are the first level consumers in the diagram? _____

37. What do the first level consumers consume? _____

38. What are the second level consumers in the diagram? _____

39. Why are there fewer organisms at this level? _____

40. What are the third level consumers in the diagram? _____

41. Why are there so fewer third level consumers than second level consumers?

42. Why are energy pyramids drawn in the shape that they are?

43. If we were looking at a forest energy pyramid, what position would hawks occupy?

44. Why aren't decomposers shown on an energy pyramid?

45. What percentage of the energy received from the lower level is used for life processes? _____

46. What percentage is only available to be passed upward from the pyramid? _____

47. Look at the picture below to answer questions 46-48. If the grass had 100% of the energy, how much energy can be passed to the grasshopper? _____

48. Why do frogs only get 1% of energy?

49. Environmental changes can affect energy flow in an energy pyramid. Suppose the number of frogs are reduced. What will happen to the snake population and the grasshopper population?

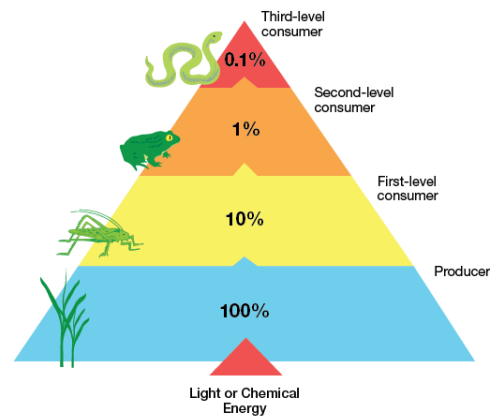


Figure 9. Energy Pyramid