

Ecological Energy Pyramid

Name _____

Period ____ Date _____ Seat _____

Directions:

1. Label each level of the pyramid side 1 with the following terms as you move up the pyramid: producer (autotroph), primary consumer (herbivore), secondary consumer (carnivore / omnivore), tertiary consumer (top carnivore).
2. Label each level of the pyramid side 2 with the following terms as you move up the pyramid: Biomass = 1000 g/m²/yr, 200 g/m²/yr (20%), 30 g/m²/yr (15%), 3 g/m²/yr (10%).
3. Label each level of the pyramid side 3 with the following terms as you move up the pyramid: Sun = 1,000,000 J of sunlight available, 10,000 J used for growth and reproduction (G&R) , 1,000 J used for G&R (10%), 100 J used for G&R (10%), 10 J used for G&R (10%)
4. On the pyramid side 4 draw a picture of what might belong in each level:
1st: flowers, grass, trees, algae
2nd: caterpillars, cows, grasshoppers, beetles, small fish
3rd: humans, birds, frogs, penguins, seals, larger fish
4th: lions, dogs, snakes, killer whales
5. Shade the first (bottom) level of each pyramid green.
6. Shade the second level of each pyramid yellow.
7. Shade the third level of each pyramid blue.
8. Shade the fourth (top) level of each pyramid red.
9. Cut out the outer shape of your pyramid and fold on the lines radiating from the center. Tape or glue the tab behind pyramid side 1.
10. Answer the following questions using your pyramid.
 - a. What are 2 terms used to describe organisms such as trees?
 - b. What are 3 terms used to describe organisms such as cows?
 - c. What are 3 terms uses to describe organisms such as humans?
 - d. What are 3 terms used to describe organisms such as lions?
 - e. What do the organisms in each trophic level eat?
 - f. Do organisms always stay in the same level? Explain your answer.

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