Energy Pyramid Directions

1. Using colored pencils shade the first (bottom) level of each pyramid green.

2. Shade the second level of each pyramid yellow.

3. Shade the third level of each pyramid blue.

4. Shade the fourth (top) level of each pyramid red.

5. Label each level of the first pyramid side of the pyramid with the following terms as you move up the pyramid: producer, primary consumer, secondary consumer, tertiary consumer.

6. Label each level of the second pyramid side with the following terms as you move up the pyramid: plants, herbivores, carnivores, top carnivores.

7. Label each level of the third pyramid side with the following terms as your move up the pyramid: autotroph, 1st order heterotroph, 2nd order heterotroph, 3rd order heterotroph.

8. Draw a picture of what might belong in each level:
1st: flowers, trees, grass, algae
2nd: caterpillars, cows, grasshoppers, beetles
3rd: humans, birds, frogs
4th: lions, dogs, snakes

9. Label the fourth side of the pyramid starting at the largest section as you move up: 100% of energy, 10% of energy, 1%of energy, 0.1%of energy.

10. Label the bottom row of the fourth side of the pyramid with 35,000 Kg of biomass. Calculate and label the amount of biomass at each level.

11. Fold your pyramid on the lines radiating from the center and glue it together using the extra flaps.

Answer the following questions using your pyramid:

a. What are three terms used to describe organisms such as trees?

b. What are three terms used to describe organisms such as cows?

c. What are three terms used to describe organisms such as humans?

d. What are three 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.

g. How much energy transfers from one level to the next?

h. Why does only this much energy transfer to the next level?

i. What happens to the energy that does not transfer to the next level?

j. 34 Kg is about the mass of a middle school student. What inferences can you make about yourself using the pyramid?

k. Why is it more ecologically friendly to eat a salad than a steak?

Pyramid Printout