



Folded Food Pyramids

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A **food chain** is a single path through the different levels of energy transfer.

Example: Sun → Grass → rabbit → fox → decomposer (upon the death of the fox)

Using organisms in the common food web above, list at least two examples of members of the following population examples:

Producers:

Primary consumer:

Secondary consumer:

Tertiary consumer:

Part 3

Using the common food web above, write out one possible **food chain** from the example.

Sun → Producer → primary consumer → secondary consumer → tertiary consumer

_____ → _____ → _____ → _____

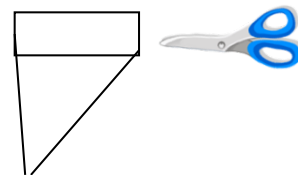
Part 4

Using the materials provided by your teacher (paper, scissors, tape, markers, etc.), construct a three-dimensional **Ecological Energy Pyramid**.

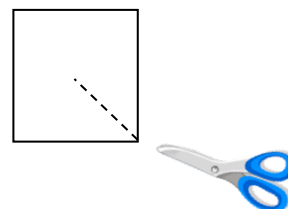
1. Obtain a piece of colored paper.



1. Fold one side of the paper to create a triangle, cut the top portion off so that you have a square piece of paper.



2. Fold your square from corner to corner, so that the crease makes an X across your square.

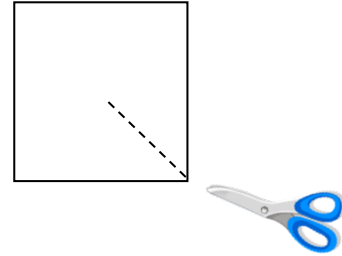




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Activity, continued

4. Make a cut from the corner of one square to the middle of the square.
5. Fold one side of your cut piece over the adjacent side so that you see a three-sided pyramid (see teachers example and the picture below.) One side will be hidden (you may want to mark an X on the side that will be hidden.) DO NOT TAPE side yet. You will need to draw on the three exposed sides of your triangle before taping it.



5. For the next several steps, you will use the organisms from the food chain example that you wrote in Part 1 on Page 2.

5. On each of the three exposed sides of the pyramid, divide the pyramid into four trophic levels.



5. On one side, label the four trophic levels (producers, primary consumers, secondary consumers, tertiary consumers). The level with the most energy goes on the bottom. Represent this by 100% on the bottom level. Label the other three trophic levels appropriately. (Only 10% of the energy moves up to the next level during energy transfer.) This is the energy pyramid. On the bottom of the pyramid draw a picture of the Sun to show the beginning of the energy transfer.
9. On the second side of the pyramid, draw the organism found on each trophic level from your food chain example on Page 3. (What organism was at that level??) Add an estimated number to represent how many of each organism that would be needed to support the trophic level above. This is your numbers pyramid.
9. On the third side, give the numeric value for each trophic level. If the bottom level is 10,000 kilograms, what are the other three levels? This side of the pyramid represents your biomass pyramid. (This expresses the total amount of organic matter in each trophic level.)
10. Once you have completed the steps, tape your pyramid together so that it stands on its own with the three-labeled sides visible.