Ecological Pyramids:

Fill in the blanks below:

1. In each link in a food chain, approximately \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the energy in the chain is transferred to the next level.

2. If 420 000 000J of energy is available to the producers in a food chain, how much energy is available to the:

A. primary consumers: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

B. secondary consumers: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

C. Tertiary consumers: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. The energy that is available to higher levels has been stored in the organisms \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

4. A large amount of energy in the food chain (30-40%) is lost to the atmosphere in the form of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

5. A large amount of the energy in the food chain (50-60%) is only available to detritivores as it is released by organisms as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

6. All of the energy in a food web come from \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

7. In an ecosystem the highest population is always made up of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

8. Organisms at the top of a food chain are called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

9. Secondary consumers occupy the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ level of an ecological pyramid, and are on the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ trophic level.

10. Fewer organisms can be supported at higher levels of an ecological pyramid as there is less \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ available.

11. All processes of life require \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

12. Organisms that perform photosynthesis are always found on the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ level of an ecological pyramid.

13. On the pyramid shown below place the following organisms and identify each as a *producer, primary consumer, secondary consumer* or *tertiary consumer*.

Organisms: seagull, algae, fish, clam