**Populations and Ecosystems test #3: Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period \_\_\_\_**

1. At the beach, students observed and recorded the following interactions in their journal:

* Crabs were found eating small flies.
* Crabs, sea snails, and fish were harder to find after a flock of sea gulls came to the beach.
* Fish would swim up and eat the little flies that landed on the surface of the water.
* There were more sea snails and flies present when the amount of algae increased on the rocks.
* The level of bacteria in the water increases when pollution causes organisms to die.

**Use the above information to create a layered food web:**

1. **Correctly place the names of the organisms into the boxes provided.**
2. **Correctly draw all needed arrows.**
3. **Label the layers of the food web on the lines provided.**
4. How much energy is passed on at each trophic level? \_\_\_\_\_\_\_\_\_\_\_\_\_% *(1pt)*
5. Name 2 ways that organisms (including humans) use energy that is not passed onto the next trophic level. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_­­­­­­­­­­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ *(2pts)*
6. How do plants get the energy they need? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*(1pt)*
7. How do animals get the energy they need? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*(1pt)*
8. Plants need \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to photosynthesize. (3pts)
9. Plants use photosynthesis to make \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.*(1pt)*
10. List 1 limiting factor in the Frog Pond ecosystem**.**

**Explain what population it limits and how it limits that population. *(2 pts)***

Limiting factor #2 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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1. Describe 1 interaction you have observed in the Frog pond. **(biotic or abiotic)** *(2pts)*

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