Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Grade:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**An Ecological Survey**

1. **PURPOSE:** To observe a community in an area of your choosing in order to identify the producers, consumers, and decomposers, to analyze their interrelationships in a food web, and to describe the physical environment of the community.
2. **PROCEDURE:** Select an area which you can easily observe. For example, you may wish to survey a plot near your home or on the school grounds. Classify the area you have chosen (eg. Wooded, grassy, pong, etc…) and its approximate size.
   1. **Area classification:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   2. **Approximate size (m2): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
   3. Study your plot and determine the types of producers, consumers, and decomposers present. Identify them by their common names. Keys to plant and animal groups can be found in the library and online (make sure you cite your sources).
   4. Identify the energy source, trophic level, classification of diet (herbivore, carnivore, omnivore, or decomposer).
   5. Describe the physical environment of your area by completing the table in Data part 2.
3. **DATA:** 
   1. What kinds of plants, animals, and decomposers inhabit this community? What is the trophic level of each? What is the diet classification of each? To answer, complete the table on the following page.
   2. What are the ABIOTIC factors of the community? You may need to do some research in order to get this data. Remember to cite any source you use.

QUALITATIVE DATA/OBSERVATIONS

|  |  |
| --- | --- |
| Temperature (daily range) |  |
| Temperature (seasonal range) |  |
| Humidity |  |
| Soil type (sandy, clay, etc…) |  |
| Soil condition (compacted, loose, etc…) |  |
| Light intensity (shady, bright, etc…) |  |
| OTHER |  |

* 1. Do you think the same kinds of biotic and abiotic factors made up this community 40 years ago? Explain.
  2. Describe any evidence of pollution in this community.
  3. How might this condition be improved?
  4. Using the data you have collected, diagram a food web that might exist in this community below.

***Organisms Found in Your Community***

|  |  |  |  |
| --- | --- | --- | --- |
| **DECOMPOSERS** | | **PRODUCERS** | |
| Common Name | Energy source | Common Name | Energy source |
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| --- | --- | --- | --- | --- | --- |
| PRIMARY CONSUMERS | | SECONDARY CONSUMERS | | TERTIARY CONSUMERS | |
| Common Name | Type of Diet | Common Name | Type of Diet | Common Name | Type of Diet |
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