**"BIO-RING"  
Biodiversity and Biomass**

**Adapted from another activity by Truman Holtzclaw**

**Directions:**Take your wire "Bio-ring" and randomly throw it out in the area. Do not move your Bio-ring once it has been thrown. Next answer the following questions and problems given below. You may work in teams of two.

1. How many different kinds of organisms did you find in your Bio-ring? \_\_\_\_\_  
   List the different organisms found in your Bio-ring.   
   Also list the #'s of each kind of organism.  
   (Use any nature manuals you can for identification.)
2. a.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ # \_\_\_\_
3. b.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ # \_\_\_\_
4. c.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ # \_\_\_\_
5. d.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ # \_\_\_\_
6. e.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ # \_\_\_\_   
   (Use the back for additional organisms if necessary)
7. Which organism is the most numerous in your Bio-ring? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
8. **Draw** the most numerous organism (#8) on the back of this page.
9. How many different kinds of animals did you find in your Bio-ring? \_\_\_\_\_\_
10. How many different kinds of plants did you find in your Bio-ring? \_\_\_\_\_\_
11. What was the biggest organism in your Bio-ring? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
12. What was the smallest organism in your Bio-ring? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
13. Approximately how much biomass is in your Bio-ring? You may take 1/4 of the organisms in your Bio-ring back into the classroom to weight them. Multiply their mass by 4 to get the total surface biomass of your Bio-ring. Once you have the surface biomass of your Bio-ring, double it because you have about an equal amount of bio-mass under the ground. Our total biomass (above & below the surface) in our Bio-ring is: = \_\_\_\_\_\_\_\_\_\_\_ grams
14. How many cm2 are in your Bio-ring? (surface area = 1 r2) \_\_\_\_\_\_\_\_\_\_ cm2?
15. How many cm2 are in your selected area? \_\_\_\_\_\_\_\_\_\_ cm2 (Show your work on the back of this page.)
16. Approximately how much biomass is in your selected area? \_\_\_\_\_\_\_\_\_\_\_\_\_\_ grams
17. How much is that in pounds? (1kg = 2.2lbs) = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ pounds
18. Think of a way in which you could measure the total*biomass production* of your teacher selected area *per day*. "Be creative" Use the back of this page.
19. What two compounds make up most of life's biomass? \_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_
20. What is the energy source for hooking these two compounds together? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
21. How could we figure out how much oxygen is produced in the teacher selected area per day? (Use back of this page.) "6CO2's + 6H2O's = C6H12O6 + 6O2's
22. What do most green plants give off during the day? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
23. What do most green plants give off during the nighttime? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
24. Name any living plant that cannot make its own food. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
25. What is the most important food crop in the U.S.A.? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_