**Campus Biodiversity Investigation**

Background: Biodiversity is a measure of the variety of life in an area. While several methods for evaluating the biodiversity of an area exist, we will use a simple biodiversity index, where

**Species Richness = Total number of different species in area**

**Biodiversity Index = Species Richness / # of total individuals (all species combined)**

Part I: Understanding the Index. Use the data table below to determine the plant biodiversity index for the different environments listed.

Carrot Patch:

|  |  |
| --- | --- |
| **Species Identified** | **Number of individuals** |
| Carrot | 120 |
| Grass | 1 |
| Dandelion | 2 |

Species Richness: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Biodiversity index = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Forest

|  |  |
| --- | --- |
| **Species Identified** | **Number of individuals** |
| Oak Tree | 1 |
| moss | 3 |
| Grass type 1 | 2 |
| Grass type 2 | 4 |
| Clover | 3 |
| Dandelion | 1 |

Species Richness: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Biodiversity index = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Part II: Measuring Biodiversity**

1. Use a pre-measured 4m length of string or equivalent to identify a 1m2 plot to observe. Approximate a square.
2. Record your observations of diversity in a data table based on the examples above.
3. You should collect samples (leaves) and take pictures of your plot for later reference.
4. Record any organisms in your plot, including animals.
5. Determine the species richness and biodiversity index