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STUDENT/TEAM WORKSHEET | GRADES 3-5 | BASELINE DATA-PLANTS AND FUNGI

NAME/TEAM: _____

OBSERVATION AREA: _____

Biological diversity can be quantified in many different ways. The two main factors taken into account when measuring diversity are richness and evenness. **Richness is a measure of the number of different kinds of organisms present in a particular area.** For example, species richness is the number of different species present. However, diversity depends not only on richness, but also on evenness. **Evenness compares the similarity of the population size of each of the species present.**

Example: Both samples have the same richness (3 species) and the same total number of individuals (100). However, the first sample has more evenness than the second. This is because the total number of individuals in the sample is quite evenly distributed between the three species. In the second sample, most of the individuals are buttercups, with only a few daisies and dandelions present. Sample 2 is therefore considered to be less diverse than sample 1.

	NUMBERS OF INDIVIDUALS	
PLANT AND FUNGI	**SAMPLE 1**	**SAMPLE 2**
DAISY	31	2
DANDELION	33	5
BUTTERCUP	36	93
TOTAL	100	100

A community dominated by one or two species is considered to be less diverse than one in which several different species have a similar abundance.[1]

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[1] "Simpson's Diversity Index." *Simpsons Diversity Index*, www.countrysideinfo.co.uk/simpsons.htm.

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The team needs to observe the entire space. Slowly look up, down and all around the observation area, including the ground.

Use the iNaturalist SEEK app or Google Lens app, local field guides and/or local experts to provide identification assistance. If the name of the plant and fungi cannot be found, enter a description.

1. CATEGORY (PLANT OR FUNGUS)	NAME OR DESCRIPTION	QUANTITY	ALIVE	DEAD
EXAMPLE: PLANT	GREGG'S MISTFLOWER	5	4	1
TOTALS				

2. Total number of plants and fungi combined from the team's observation area. _____

3. **Richness**
   Number of different plant and fungus types _____

4. **Evenness**
   Number of each different type of plant and fungus. For example: 3 swamp milkweed, 5 sea oats, 10 compact nandina, 5 yarrows, 2 little blue stem, and no fungi

5. Create a bar graph, t-chart or infographic showing plant and fungus richness and evenness.

Example Bar Graph of Plant & Fungus Richness and Evenness

	Plant Type 1	Plant Type 2	Plant Type 3	Fungus Type 1
Value	10	1	4	10