**Post-Lab Questions**

# Explain any differences or similarities in soil respiration rates between the four soil (habitat) types.

# Where would you expect rates of CO2 production to be higher? Why?

# a. Swamp b. Prairie

# c. Temperate Forest d. Tropical Forest

1. Our experiment was a microcosm of larger soil ecosystems. As a model, how is it realistic and how is it unrealistic?
2. Circle all correct answers. In most terrestrial ecosystems, soil respiration…
   1. Happens when rocks break down
   2. Is not linked to decomposition rates
   3. Typically decreases as soil moisture increases
   4. Refers to respiration by organisms living in the soil
   5. Typically decreases as temperatures increase
   6. Includes gases from plant roots
3. What would happen to the carbon cycle if all decomposers suddenly died and were not replenished? Decide whether each statement is true (T) or false (F).

T F Carbon would accumulate in organic matter

T F There would be more carbon in the soil for plants to absorb

T F Carbon would cycle more rapidly without decomposers

T F Carbon in the atmosphere would increase