



Biodiversity of Insects Inquiry Lab

Standards: SCSH 1-5



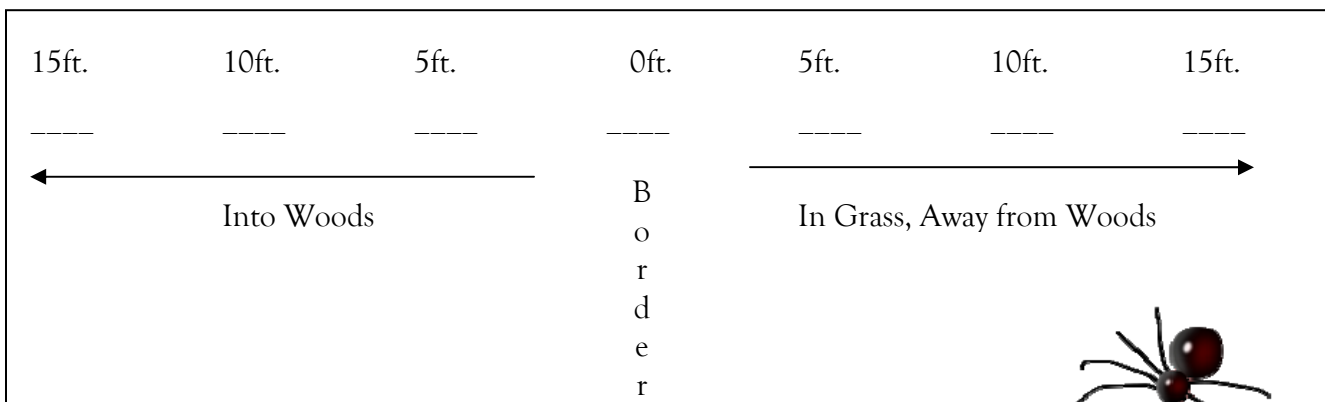
Background:

Insect biodiversity accounts for a large proportion of all biodiversity on the planet, with over 1,000,000 insect species described, but current estimates of total insect diversity vary from 5-80 million species of insects. In agriculture, biodiversity is important not only for the production of food, but for other ecological services as well, including the recycling of nutrients and suppression of undesirable organisms. Also over 1000 species of insects are, or have been used as food somewhere in the world. (Note: Spiders are NOT classified as insects! Spiders are in the same Phylum as insects, Phylum Arthropoda, but they are in the Class Arachnida instead of Insecta. However, we will include them for this activity.)

Hypothesis:

Based on your prior knowledge of insects and their habitats, you and your partner make predictions on the number of different species of insects that you will find at the different transects.

Overall, where do you predict there will be the most diversity of insects, in the grassy area, the border, or the woods? _____ Why? _____



Procedure:

- 1) You will work in collaborative pairs. Decide who will be the “scout,” or the individual that collects the insects and which one will be the recorder, the individual that records the number of different species of insects found.
- 2) The scout will use a sweep net and make 25 consecutive sweeps parallel with the border between the woods and the grass.
- 3) You and your partner should count the number of different species of insects captured in the net. (Caution: Hold the sweep net open away from you for a few seconds before you begin looking inside to allow any bees to fly out that you may have captured, but make sure to include them in your results).
- 4) Record the number of different species in the table.
- 5) Repeat steps 2-4 for each interval into and out of the woods. (Note: We are going to estimate that “1 foot” is equal to “1 step” for this experiment).
- 6) Use your data to make a bar graph comparing the number of different insect species found at the border and at the various depths into and away from the woods.

