

Name:

Period:

Session 11: Expanding on your Findings

Directions: Before getting started, you'll need to find:

- Any graphs you made in Session 11
- Your completed hypothesis notebook page from Session 6
- The SageModeler computer model that you created in Session 5

Once you've found those three things, answer the questions below to see if your data supported your model and hypothesis.

Part I: Thinking About Soil Moisture

1. Think back to our first research question about soil moisture. What was your hypothesis?
2. Based on the data, in which treatment was soil moisture the highest, and in which treatment was it the lowest: woody mulch, straw-like mulch, or no mulch?
3. Based on your analysis of the data using SageModeler, do you think that any differences between the treatments were statistically significant or could they have been a result of random chance? Explain your reasoning.
4. Was your soil moisture hypothesis supported or not supported by the data? Why or why not?
- 5.

Part 2: Thinking About Mulch Decomposition

- 1. Think back to the second research question about mulch decomposition. What was your hypothesis?**
- 2. Based on your data, which mulch type decomposed the fastest: woody mulch, or straw-like mulch?**
- 3. Based on your analysis of the data using SageModeler, do you think that any differences between the treatments were statistically significant or could they have been a result of random chance? Explain your reasoning.**
- 4. Was your original decomposition hypothesis supported or not supported based on your data? Why or why not?**

Part 3: Reflecting on Your Model

- 1. Take a few minutes and revisit your model. Does the data that you analyzed match what the model predicted we'd find?**

- 2. Based on the results of our experiment, would you make changes to your model to make it more reflective of the real world?**

If you would make changes, explain how you'd like to change your model and why you want to make those changes. If you wouldn't make any changes, explain why you think it's better to keep your model the same.