

Essential Ecology Lab Report Poster - Species Interaction

As you finish collecting data from your Greenhouse species interaction experiment, you will work with your group to prepare a scientific poster in Powerpoint detailing your experiment and its outcome. **You are following Format C general guidelines for the lab report**, however, there will be no abstract. Instead, you will be displaying your information in a format similar to that of a research conference poster. The poster doesn't need to be printed out. It will be formatted on a powerpoint slide that will be submitted digitally in PDF form to your instructor and presented in class using the projector. You will present on the last day of the lab for 5 minutes per group.

1) **Title:** suggested no more than 10 words describing the study. The title should be clear and draw the reader in. Below the title include the authors and your affiliation (NAU).

2) **Introduction:** a description of your study's background. Here, you describe the observations you made that led you to the questions you developed, and any applicable background information that led to the questions (with outside sources cited). You should conclude your introduction with the questions you set out to answer through your experiment and the hypotheses you generated for each question, as well as the predictions ("if...and...then..." statements) you made for each hypothesis.

3) **Methods:** a description of the experimental methods you employed. Describe, in enough detail that your methods could be repeated by another naïve researcher, how you prepared your pots, how they were maintained, and how measurements were taken. Also, describe statistical analyses or calculations performed on your data. **A photo of your experiment design could go next to this section.**

4) **Results:** a description of the outcome of your experiments. Describe what happened (did the plants grow? did they survive through the full experiment? how did the average height of plants in different species differ according to experimental conditions?) This section should include data (like figures), but no *interpretations* of data. Interpretations belong in the next section. **At least one graph visually displaying your results is required in this section.**

5) **Discussion:** a description of what your results suggest about the hypotheses you tested, and what your results imply, relevant to species interactions. Did plants exhibit different growth or survival in different ecological interaction contexts? Why or why not? Is there anything you would change in a further study to make the results stronger or more robust? You should end this section with 1-2 sentences that restate your main conclusions, speak to their importance and note how they relate back to your research question.

6) **Tables and Figures:** **There should be at least one photo and one figure on your poster.** These can be placed anywhere on the poster that makes sense for the layout. They should be high resolution and easy to interpret. Often the figure is the first thing someone will look at on a poster so make sure it can stand alone.

Refer to the Lab Report Format C Guidelines for more detailed instruction.

Instructions to create Poster on Powerpoint

Step 1 Gather your contents in the form of text, graphs and photos. If you need to scan slides or photos, there is a scanner available for use in the library computer lab.

Step 2 Open PowerPoint, choose Blank Presentation and click OK.

Step 3 Choose the Blank slide layout and click OK.

Step 4 Go to File in the toolbar and click Page Setup.

Step 5 Choose a standard poster size, usually a 48" by 36" rectangle.

Step 6 Click Insert on the toolbar, choose Text Box. A text box drawing tool will appear on your PowerPoint slide. Click and drag to create the box. This is where you will place your prepared text. Simply cut and paste from Word or type directly into the text box. The box will expand to fit the information entered. Remember to consider your font size and make it suitable for poster use. Font sizes of approximately 36 to 54 are recommended for titles, approximately 18 for text. Use your judgment for your specific poster needs. PowerPoint does not recognize all fonts; Arial and Times New Roman are recommended for use. Symbol is the font recommended for scientific symbols. To choose the characteristics of the text box such as line, color or size, go to Format in the toolbar or right click on the text box and select Format Text Box. You can copy and paste directly from Word documents into PowerPoint text boxes. We would suggest using black on a white background in text boxes for easy reading.

Step 7 To add logos, charts or photos, go to Insert in the menu bar and select Picture, and then From File and browse to your file containing your charts or scanned and saved pictures. Select it and click the Insert button.

Step 8 Once you have inserted your pictures, you can move or resize them to suit your needs. The dotted guide lines on the templates are there to tell you where on the sheet your boxes are and can help in getting things properly aligned. If you click and hold them, a box will appear giving the lines' locations on the sheet. You can then move them into position. They will not appear when the poster is printed. If the Guidelines are not visible on your screen, select View, then Guides.

HINT: Walk through the halls of the Physical Sciences building for Poster layout examples. There are also many examples and templates online to make sure your poster is clean and concise. Once the main layout of your poster is created, try transitioning to Google slides so it is easier to complete this project as a team over Thanksgiving break.

You will be submitting the poster as PDF to your lab instructor, so make sure that the conversion to PDF does not skew any of your formatting.

Grading Rubric: Total 50 points

___ 30 points/ your poster includes all elements of a Format C lab report (listed above) and is clear and concisely written

___ 10 points/ your poster is visually appealing and includes at least one figure and one photo

___ 10 points/ group participation - based on the average score given by your other group mates for the effort you put towards this project.