

DIAGRAM 1

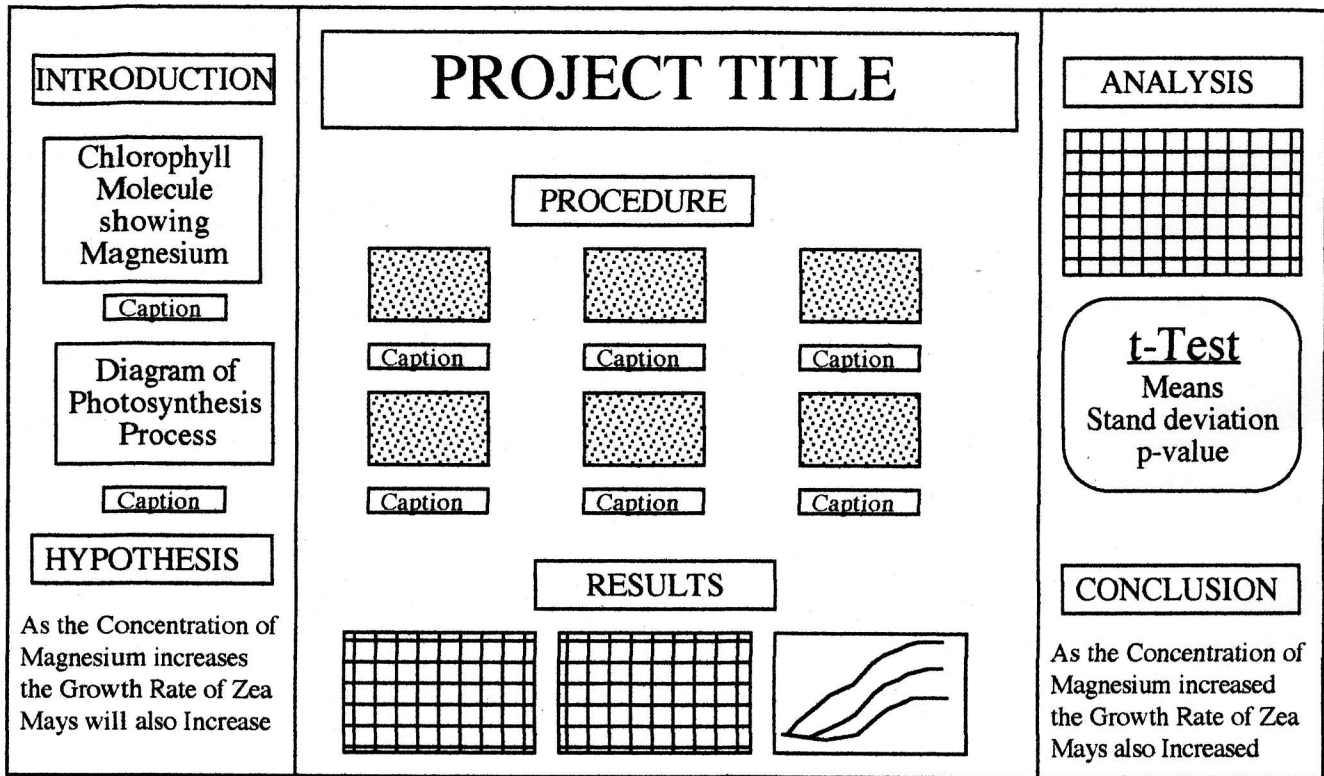
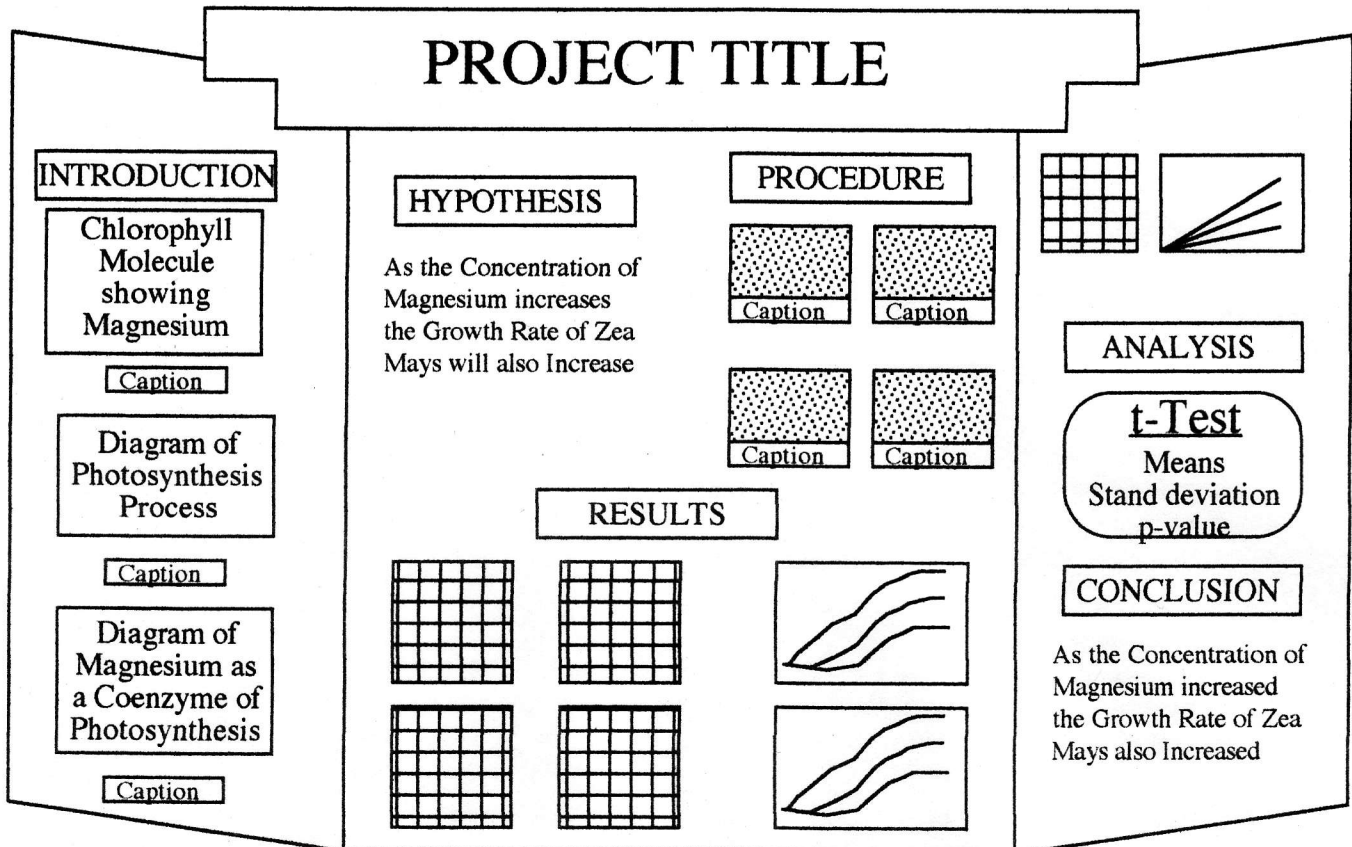


DIAGRAM 2



PROJECT BOARD GUIDE

TITLE

Every project must have a title. The title can be produced in any computer drawing program. A simple title that is commonly used is: "The Effect of (variable) on (test organism/object)". Depending on the length of the title, it is either done in one or two lines. In most cases, the title is mounted on the top, center of the central portion of the project board (Diagram 1). However, the title can also be mounted separately on a piece of foam board that runs across the top of the project board, locking into the right and left hand side flaps (Diagram 2).

INTRODUCTION

The introduction section of your project board starts in the top left hand corner of your white foam board. Generally it contains information that is related to your specific topic, or the scientific process involved in your project. Some examples of introductory material include: structural formula of your variable(s), a diagram of a specific process that includes your variable, a chart, table, or graph from an article that in some way relates to your topic. Even a headline or picture from an article may be used to demonstrate the importance of your research. The introduction must establish the reason/need for the research. It provides the necessary scientific support for the concept of your project. There may be information on existing methods that deal with your project, and why these methods are deficient, or can be improved. The introduction should lead to your hypothesis.

HYPOTHESIS

Depending on the amount of introductory material, the hypothesis is generally found in the lower, left hand side of your project board. It is a statement(s) of what you tested, it must be "measurable". It should be written in a large font (24-36 pt. works well). For example: As the concentration of magnesium increases the growth rate of *Zea mays* will also increase. If you tested more than one variable, then you will have more than one hypothesis, simply list them in order.

PROCEDURE

The procedure most often is located in the top section of the center panel of your project board. A photographic picture should be taken for each major step in your project. Try to take all the pictures in the same orientation, landscape or horizon. A caption, 2-4 sentences, describing what is represented by the photograph must also accompany every picture. The photograph and captions should be mounted on colored construction paper (separate or together).

RESULTS/ANALYSIS

Depending on the amount of materials on the project board, the results generally tend to be either on the bottom of the central section or the top of the right hand side of your project board. The results consists of all your data first presented in tables, and then as graphs. Graphs with more than one line plot, should be distinguished from each other by coloring the key and the plot lines. Remember all tables and graphs must be labeled, and the scale units must be identified. The Analysis subsection of the results includes the statistical analysis of your results; generally this a t-Test. The t-Test results should include the means, standard deviations, and probability values.

CONCLUSION

The conclusion is most often found in the lower right hand corner of the project board. It has the same specifications as the hypothesis. In its simplest form, the conclusion is merely a restatement of the hypothesis. However, the conclusion can be made more specific using the experimental results. For example, results can be converted into percent increase, decrease, or improvement. For the most part, did your experiment support your hypothesis, yes or no.

PROJECT BOARD TIPS

- Cut board materials and colored background paper with a paper cutter to keep all cut papers as straight as possible.
- Enlarge all copied diagrams to a "reasonable-size" so they can easily be viewed from a distance of 1-3 meters.
- Use glue sticks to mount printed papers to colored background papers - this will prevent your papers from getting "glue wrinkle".
- Use staples to mount materials to the board, as this will allow you to remove and rearrange materials on your board.
- Keep "text" materials to a minimum on your project board, the board should be a "visual representation" of your project.
- Do not put anything on your board that you are not prepared to explain or answer questions about.
- Whenever possible have actual materials, models/, set-ups, etc. - displayed with your project board.
- Your lab notebook should be available in case the judge wants to see your "raw data".