Creating Your Science Fair Graph

Part 1: Selecting a Graph Type

Directions: There are several types of graphs you can use to represent the data from your tables. In this part you and your team will research and choose the best type of graph for you to use.

1. Here are some examples of different types of graphs:
- Line plots
- Bar graphs
- Pie charts
- Histograms

Each type is best for different kinds of data. Each person on your team should choose one type of data to learn about. Have a short discussion until everyone agrees on learning about one type.

2. Go back to rows and do internet research on the type of graph that you chose. Your goal is to become an expert on the type of data that your graph would represent the best. You should be prepared to teach the other members of your team about your type of graph. Use these questions to guide you.
- Does your graph best represent time data? quantities? percentages? changes?
- Find some examples of where your type of graph is used.
  - what is being represented by the data?
  - Why does this graph make it easy to display that data?

3. Graph Presentations: Each member of your team teaches the others about your graph. Your goal is to now make all the members of your team an expert on your graph. You can show examples on your lap top.

4. When each person had given their presentation, have give members of an opportunity to ask each other questions. Then discuss which type of graph would be best for your ryegrass data.

5. Once you've decided which is the best type of graph, it's time to make a graph of your ryegrass data. This will be individual work not group work. Go back to rows. See part 2 for suggestions.

Part 2: Graphing Your Data

Directions: You will now graph your data using the graph type your group agreed upon. See suggestions below.

1. Remember, the independent variable goes on the x-axis and the dependent variable goes on the y-axis.

2. Start by creating axes and labeling them. You must include units (cm, minutes, etc.) in your axis labels.

3. Number your axes. You should choose intervals that allow you to plot from your smallest number to your largest number.

4. Once your axes are set up, plot your data using the type of graph you and your team chose. Use color so people can clearly see the difference between your control and experimental groups.

5. Repeat this process for each dependent variable (height, number of sprouts, etc.)