**Graphing Guidelines for Biology**

1. For informal graphs, please use graph paper. If you are making a graph for a lab report, please use Excel or other spreadsheet to make the graph.

2. Title - Place a title in the form “y versus x” followed by a descriptive phrase above the graph. For example, a graph that shows the distance a car travels on the y-axis and the time that has passed on the x-axis might be titled: Distance versus Time for a Car on a Roadway.

3. Independent Variable - put the **I**ndependent variable on the ***x***-axis. (M**I*X***)

4. Dependent Variable - put the **D**ependent variable on the ***y***-axis. (**D**R***Y***)

5. The graph should fill the space provided. If you have reserved a whole sheet of graph paper, then the graph should be as large as the paper and proper scaling techniques permit.

6. Scales - Choose for each axis a scale where each square equals the same number of units (e.g., 2, 5, 10, 100).

* Each axis of the graph should always **begin at zero**.
* Each square on a given axis must represent the same amount (e.g., each square could represent 2 cm). Do not use a slash to save space on the axis.
* Each axis for a graph should be scaled differently from the other since they are representing different variables.

7. Labels – On each axis, give the name of the variable and, in parentheses, the units.

8. Make sure to use the correct type of graph.

* If you are comparing categories, then a bar graph is appropriate (e.g., plant height versus type of fertilizer).
* If you are looking at a relationship between the x and y axes (e.g., blood glucose levels versus time), then use a line graph. Line graphs must use numbers on both axes.