

Graphing With Microsoft Excel

Knowing how to graph with Microsoft Excel is an extremely powerful skill that all students should learn as soon as possible. There are lots of wonderful, and complicated, things that Excel is able to do, however we will be using the basic functions of Excel to graph our data from our experiments. Follow these steps in order to complete your graph.

1. Open Microsoft Excel so there is a blank spreadsheet
2. **Plug your data** into the cells.
 - a. Cell column A should be your **independent variable** (or the variable you want to place on the X - axis. Make sure to label the top of the cell so you know what it represents.
 - b. Cell column B should be your **dependent variable** (or the variable you want to place on the Y - axis). Again, make sure to label the top of the cell.
3. **Highlight** all the data.
4. Click the "**Layout**" button on the toolbar at the top.
5. Then click "**Scatter Plot**"
 - a. There are lots of options under scatter plot, but the most useful for us is going to be the "**Smooth Marked Scattered**"
6. Right click on the chart and click "**Move Chart**" then Choose "**New Sheet**" You can label it whatever you want.
 - a. This allows you to work in a clean area and makes the graph easier to see.
7. Click on "**Chart Layout**" - This will enable you to title your axes and your graph.
 - a. Click "**Axis Titles**"
 - i. **Label your X** - Axis by clicking on the existing label - Don't forget units.
 - ii. **Label your Y** - axis by clicking on the existing label - Don't forget units.
 - b. Use a **scale** for your axes that makes the graph as large as possible, but still includes all the data.
 - i. **Double click** on the numbers on the axis then choose scale to adjust the scale on the axis.
 - c. Click "**Chart Title**" and then click on the existing title.
 - i. Title your chart in the following way:
 1. *Dependent VS. Independent*
 2. This allows people to quickly know what your graph is about.
8. Format your **Legend** so the person reading the graph knows which line represents what.
 - a. You really only need to do this if you have more than 1 line.
9. Cleaning up your graph
 - a. Click on the **major gridlines** (the lines that are running horizontal on the graph. They should all highlight and then push the delete key. They should go away.