

Making a Scatter Plot using Microsoft Excel Vista

Entering Data

Before you make a graph you must first enter your raw data into an Excel Spreadsheet. Then you basically tell the program where to find the data to make your graph or chart (as it's called in Excel).

To start

1. Open Microsoft Excel. A blank spreadsheet should be in front of you containing blank cells or boxes. This is where you will enter your data. The cells are labeled alphabetically in columns across the top and numerically in rows along the left side of the screen.
2. You will enter your data in columns. You should label your columns (in the first cell of each column) so that you know what your data represent
3. Type in your values for Column A (often time data).
4. Enter the corresponding numerical values in Column B.
5. DOUBLE CHECK that you have entered your data correctly!!!

Next Step...

Making a Graph

6. On the top of the screen click on the "Insert" tab, then select the Chart type you wish to use. For these exercises select the "Scatter" (XY chart) button on the right of the chart listings.
7. In the dropdown from chart subtype pick a type of graph. For this exercise you should pick a type that has dots and lines (not curves) connecting the dots (the second button on the left in the drop down screen).
8. A chart will appear on your spreadsheet, but MOST of the time it DOES NOT graph things the way you want them so we have to tell the program which data to graph. Right click on the graph and click "Select Data".
9. Select "Series 1" and click the "edit" button. By clicking the buttons beside each of the labeled boxes, you may select the columns of your choice for the X and Y axis, as well as enter a title.
10. Click on the series name box and enter the name for your data (for our example, series 1 would be called CO, series 2, O3 and series 3, Air Temp).
12. Click on the symbol next to the 'X Values' text box that looks like a triangle. This will let you manually choose the data you want to plot along the x-axis. In our example we want to plot time along the x-axis.
13. In the spreadsheet click on the cells in Column A that contain your time data and highlight the data (hold down the mouse button while you drag it over the cells.) The column should have a moving border around the numbers that you would like plotted on the x-axis.

14. Click and highlight the text in the 'Y' text box and hit the delete button to delete any text that may appear in the box.
15. To select the 'Y' data, click on the same triangle symbol next to the 'Y' text box. Repeat steps 14 and 15 but this time highlight the data in Column B.
16. When you are finished choosing columns for this series, push "OK" and you will return to the "Select Data Source" window. If you need to add an additional series, click the "Add" button and repeat steps 10-13.
18. Once you have added all the data you would like on your graph click "OK".
19. To label your chart and its axis, click the "Layout" tab at the top of the excel sheet. By clicking the "Axis Titles", "Chart Titles" or other buttons, you will be enabled to perform those various tasks using a dropdown menu.
20. If you would like to move your chart to its own page so that you may view it full screen, right click the border of your chart and select "Move Chart".
21. We need to make sure everyone's scale is the same on all the graphs so that we can easily compare graphs. To do so, right click on the y axis and select "Format Axis".
22. At the top of the format axis box click on the tab that says scale. Set the minimum to zero and the maximum to 200 and click OK. Now everyone's scale should be the same and we can compare graphs.
23. To set up a secondary y axis for one (or more) of your data series, right click (again using 'ctrl' and the mouse button) on the data series (the actual colored data point), and select 'Format data series'. A format data series box should pop up.
24. At the top of this box click on the tab that says "Axis". Click on "Secondary Axis" then select OK. You can reset the range for this axis in the same way as the primary y-axis as outlined in step 22 and 23.