Graphing in Physical Science

Step 1: Determine the independent variable and the dependent variable.

- Independent variable is what you change dependent is what you measure.

Step 2: Label the x-axis as the independent variable and the y-axis and the dependent variable

Step 3: Determine the number scale for each axis based on the biggest measured number

- Space out to take up the entire page!

Step 4: Title your Graph

Step 5: Graph Data points and draw a line of best fit

- The line of best fit does not have to hit the most points and does not have to go through 0.
- This line shows the pattern of your data.

Step 6: Determine the slope with the correct units

- $Slope = \frac{rise}{run}$
- Units are determined by the axis. Rise= y and Run=x

Step 7: Determine the y-intercept with the correct units

- Where the line crosses the y-axis
- Units are the y-axis units

Step 8: Write the math equation.

- y=mx+b
- m=slope and b= y-intercept

Step 9: Replace the y and x in the equation with the label from each axis

Example