Steps on How to Draw a Line Graph

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| **Step** | **What to Do** | **How to Do It** |
| **1** | Identify **Variables** | * Independent Variable   + Controlled by the experimenter, causes a change   + Goes on the X axis (horizontal) * Dependent Variable   + Monitored by the experimenter, shows the effect   + Goes on the Y axis (vertical) |
| **2** | Determine the variable **ranges** | * Subtract the lowest data value from the highest data value. * Do each variable separately |
| **3** | Determine the **scale** of the graph | * Determine a scale, (the numerical value for each square) that best fits the range of each variable. * Spread the graph to use MOST of the available space. |
| **4** | Draw, number and label each **axis** | * Must use a ruler! * This tells what data the lines on your graph represent. |
| **5** | **Plot** the data points (include a key if necessary) | * Plot each data value on the graph with a dot or a cross. * Use different colours/shapes for different data sets. Include a key if this is the case. |
| **6** | Draw a **line of best fit** | * Draw a curve or a line that best fits the data points. * Most graphs of experimental data are not drawn as "connect-the-dots" |
| **7** | **Title** the graph | * Your title should clearly tell what the graph is about * E.g. “the effect of x-variable on y-variable” |