**Handy tricks for spreadsheets:**

1) Scroll to the last row in the spreadsheet.

* Command – down arrow. (Control-down arrow on a Windows)

2) Select the entire column.

* Command-Shift-down arrow. (Control-shift-down arrow on a Windows)

3) Copy a formula or pattern to all the cells beneath it:

* Double-click on the blue box in the lower-right corner of the highlighted cell.

**Plotting Data in Google Sheets:**

0) Always save an “original” copy of data you download from the internet.

* Create a duplicate that you will edit and create plots on.
* That way, if you accidentally delete something or mess something up, you can easily go back to the original downloaded data.

1) Copy-paste your data into Google Sheets.

* Retain column headers.
* Be sure columns are correctly aligned.
* Use different tabs for data from different data sets.
* Give the tabs meaningful names! (this helps with organization)

2) Highlight the columns you want to plot (shift-click)

* The first column will be your x-axis.
* The second (and more) columns will be plotted on the y-axis.
* Move the columns left-and-right using the “drag” tool (hand) if you need to change the order.

3) Insert Menu > Chart.

Note the “Chart editor” on the right.

Dropdown menu “Chart type” allows you to present data with different graphing types.

4) Adjust the plot. Click on “Customize” (in Chart Editor).

* Note that you can double-click on chart elements (axis labels, tick marks, etc.) and it will bring up the properties for that element.

5) Change axis limits

* Double-click on the tick labels (the numbers that label the lines on the x- and y- axes).
* This brings up Chart editor > Customize > Vertical axis.
* Enter values in the boxes for “Min” and “Max.”

**Add a trend line to a data plot:**

1) Double-click on the line. This will bring up: Chart Editor

2) Chart editor > Customize menu > Series. There is a box at the very bottom: “Trendline.”

* You can select Label > Use Equation to show the line’s equation.
* Note that the slope of the line shows the (change in temperature) / (change in time). This is meaningful!
* Check the box for “Show R-squared” to see R-squared.