# Google Sheets
Science Fair Spreadsheet Instructions

1. ☐ Login to your Chromebook or your Google account as you normally would. Then launch the Google Chrome browser.

2. ☐ Choose the green "Sheets" icon from the Google Apps Launcher, then select a new "Blank" spreadsheet from the choices given. (Alternatively, open your Google Drive and choose the blue "New" button, then "Google Sheets". This will give you a new sheet to work on.)

3. A window will appear similar to the one below.
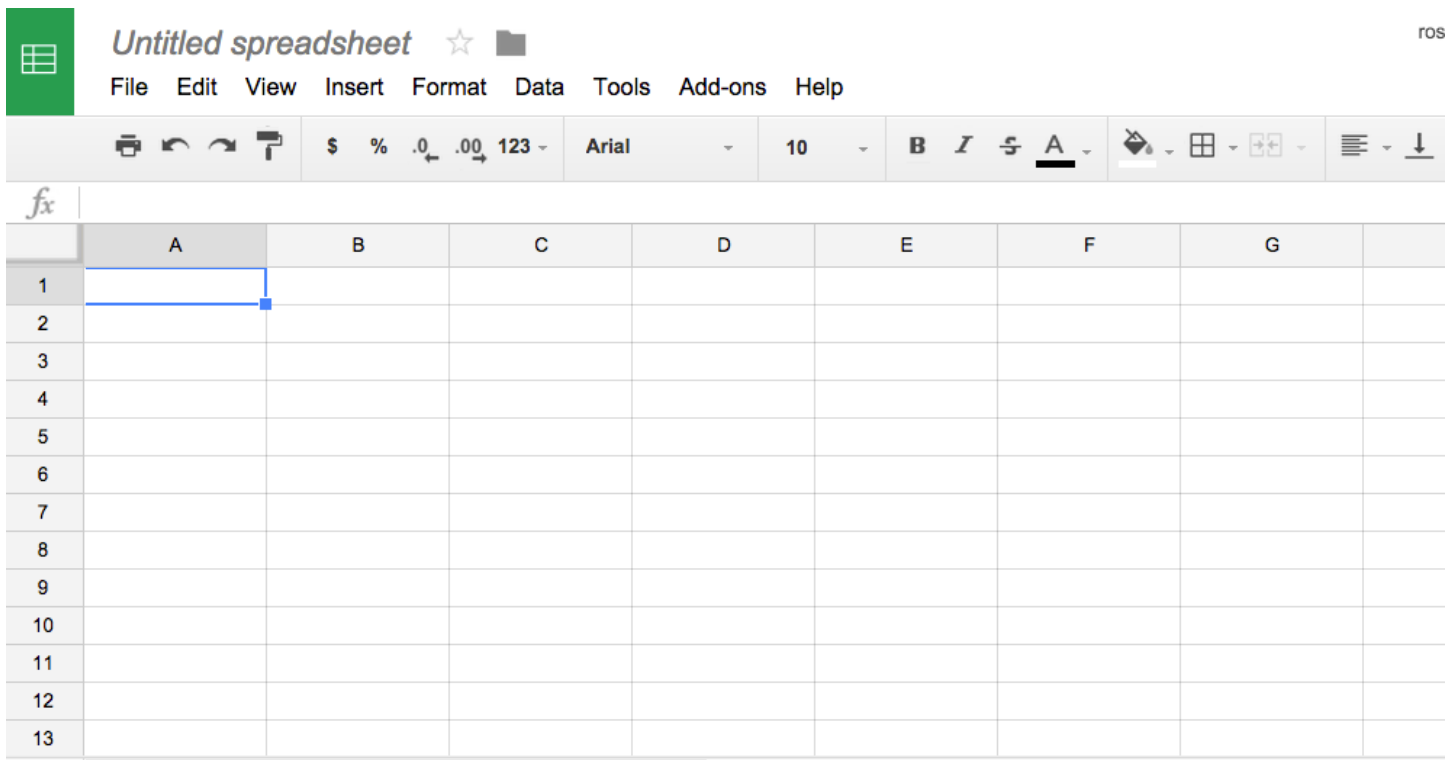
4. A spreadsheet is made up of a series of rows (1-13 in the image) and columns (A-G in the image). Each box at the intersection of a row and a column is called a *cell*. For example, Column A, Row 1, would be called *cell* A1.

5. ☐ Click on the title "Untitled Spreadsheet" and rename this spreadsheet as "last name Plant Height".

6. ☐ In cell A1, enter the title "Plant Height". Make the title 14 pt., and the font Verdana. Resize column A so that the words "Plant Height" fit entirely within the A column.

7. ☐ In cell B1, enter the word "Red". Enter the rest of the column headings as follows – In cell C1 enter "Yellow", in cell D1 enter "Green", in cell E1 enter "Blue" and in cell F1 enter "Control".

8. ☐ Highlight cells B1 thru F1. With these cells highlighted, choose the "Border" tool from the tool bar. Then choose the option for "Outer borders". This will make a box around cells B1 thru F1.

9. ☐ Highlight cells B1 thru F1 and change the font to Verdana and make the size 14 pt.

10. ☐ In cell A2 thru A11, enter the row titles "Plant 1 thru Plant 10". You can type in "Plant 1" in cell A2, then copy and paste in A3 thru A11, then go back and change the number accordingly. OR, you can type "Plant 1" in cell A2 and use the Smart Fill Down feature by pulling down/highlighting the cells you want to fill with the tiny square in the lower right corner of cell A2. This will fill cells A3 thru A11 with the word "Plant" but then change the number following it.

11. ☐ In cells B2 through B11 enter imaginary values in the Red column. Keep the number between 1.0 and 10.0 and to the tenth.

12. ☐ Enter similar imaginary values for Yellow, Green, Blue, and Control columns.

13. ☐ Highlight cells B2 thru F12 and use the "Decimal Places" buttons in the tool bar to make all the data have one decimal place.

14. ☐ Highlight cells A2 through **F12**. Make a border around each cell ("All Borders").

15. ☐ In cell A12, enter the word "Average".

16. ☐ To calculate the average of the values in cells B2 thru B11. Click in cell B12 and enter the formula for calculating average "=AVERAGE(B2:B11)".

17. ☐ You will need to calculate the average of each column the same way. However, you can fill the formula in by using the tiny square in the lower right and dragging it to the right to the desired location (much like the Fill Down from step #10). Fill in the formulas from B12 thru F12.

18. Now let's create a chart and graph our results.

19. ☐ Highlight cells A1 through F12. With those cells highlighted, select "Chart" from the "Insert" menu or toolbar.

20. ☐ When the Chart Editor opens, click the "Chart types" tab, then scroll through the chart types and select "Column Chart" for the type of chart to use.

21. ☐ Click the "Customization" tab and change the chart title to "Plant Heights". Also, make the title 24 pt., Arial, Bold style.

22. ☐ Scroll down to the "Axis" section of the "Customization" tab. Erase the axis title for the horizontal axis, then slant the labels 30°. Change over to the "Left Vertical" axis from the pull-down menu. Enter "Plant Heights (cm)" in the title field for the left vertical axis. Leave formatting as is.

23. ☐ If you haven't noticed yet, the colors on our chart don't match the color names in the legend. This could be confusing in a chart like this, so we need to change them. Scroll to the bottom of the "Customization" tab choices to "Series". If you pull down the "Series" menu you'll see all of the color choices. Select a color and find a match from the "Color" pull down menu.

24. ☐ Repeat step 23 until all the bars are the appropriate color. Use grey for the "Control".

25. ☐ Click the "Insert" button to place the chart on your spreadsheet once you have it looking the way it is supposed to.