How To Create a Histogram in Google Sheets

Let's imagine that after we've created an Absolute Frequency Table for the data we collected on the number of hours of sleep college students get each night, we want to create a Histogram to visually represent our data.

First, we will create our Histogram Bins. A Histogram Bin is an interval that is entered into only one cell of our spreadsheet. For example, when we created our Absolute Frequency Table, we entered the minimum and maximum of each interval into two separate columns (Min and Max). Now, we want our interval to be together in one cell, under one Column Heading.

To create our Histogram Bins, we start by entering the Column Header "Histogram Bins" into a blank column in our spreadsheet. In the first cell of this column we enter our first bin value (our first interval). In this example our first bin value is 1 to 3. We then continue to enter the rest of our intervals into the Histogram Bins column.
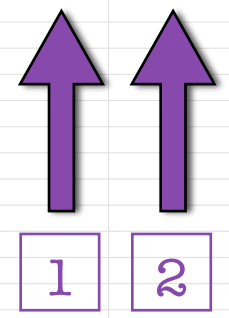
	J	K
	Histogram Bins	**Absolute Frequency**
	1 to 3	1
	4 to 6	8
	7 to 9	9

Second, in the column to the right of the Histogram Bins, we enter the Column Header "Absolute Frequency." In this column, we enter our Absolute Frequency values from Column E into our new Absolute Frequency column for each interval. In this example, they are 1, 8, and 9.

Once we've created our two new columns for our Histogram Bins and our Absolute Frequency, we are ready to begin making our Histogram.

To create a Histogram, we begin by selecting the data in our "Histogram Bins" column and the data in our "Absolute Frequency" column. These data are

|	A	B	C	D	E	F	G	H	I	J	K
1	Sleep (in hours)	Min	Max		Absolute Frequency	Relative Frequency	Cumulative Absolute Frequency	Cumulative Relative Frequency		Histogram Bins	Absolute Frequency
2	4		1	3	1	0.056	1	0.056		1 to 3	1
3	7		4	6	8	0.444	9	0.5		4 to 6	8
4	5		7	9	9	0.5	18	1		7 to 9	9
5	8										
6	3			Total	18	1					
7	9										
8	7										
9	6										
10	5										
11	8										
12	4										
13	6										
14	7										
15	8										
16	5										
17	9										
18	7										
19	6										

1   2

highlighted in blue in the figure below. And we want to be sure to select only the data, not the Column Headings.

First, click "Insert" in the ribbon at the top of the Google Sheets window.

Second, from the drop down menu select "Chart."

Selecting "Chart" will give us a new "Chart Editor" toolbar on the right side of the screen.
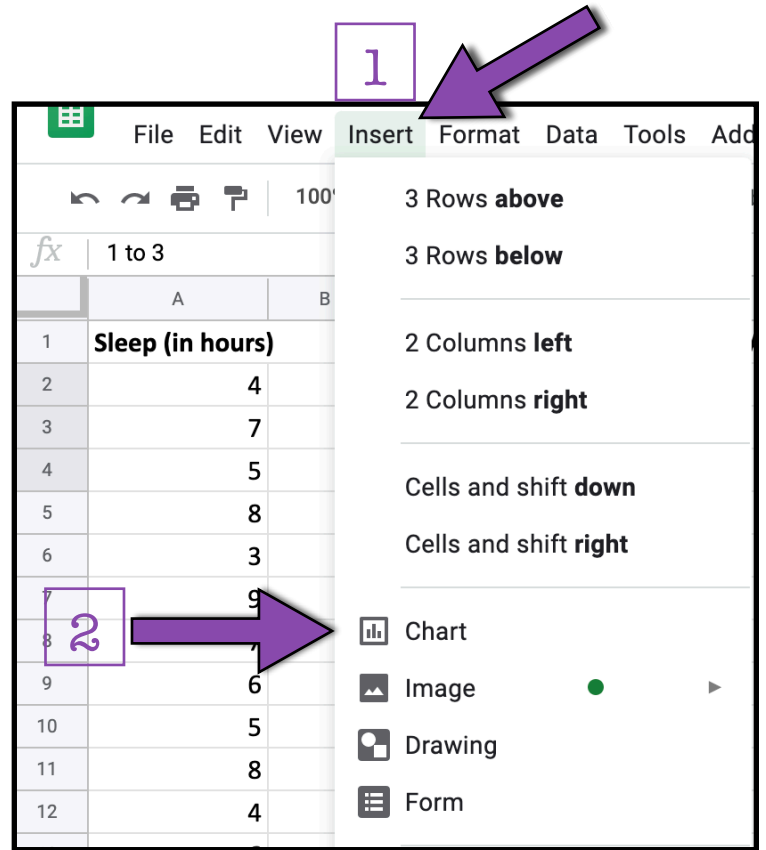

Under the "Chart Type" drop down menu select "Column Chart." Clicking on that option will cause a Histogram to appear!

Google Sheets will automatically create placeholder labels for our Graph Title and Axis Labels on our Histogram.

However, we want to edit the Chart Title and Axis Labels to make them more informative.

To change the text of our Graph Title and our Axis Labels, we can simply double-click on the text of the label, highlight the existing
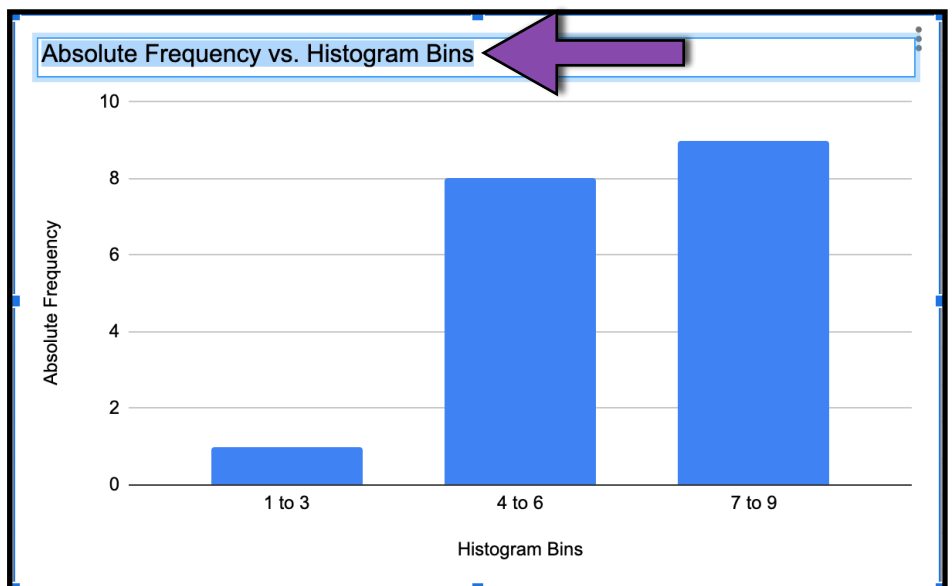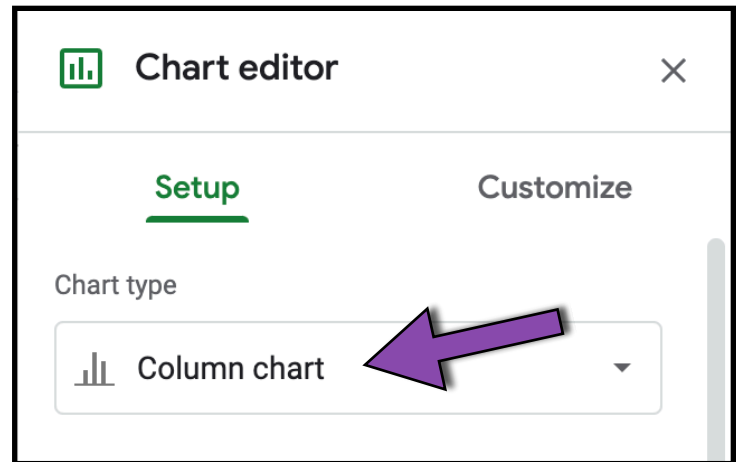
text, and replace the existing text with our new label.

Once we've added our informative Graph Title and Axis Labels, we need to look at the Graph Units (the units of information presented on our axes).

Graph Units (the units of information presented on our axes). Google Sheets has automatically created our Graph Units in increments of 1 (e.g., 1, 2, 3). Google Sheets does not allow us to change the Graph Units, so we must use the Graph Units Google Sheets automatically creates.

Finally, we may want to adjust the color of the data bars in our Histogram.

To change the color of our data bars we first select the data bars by double clicking in any of the bars.

A "Chart editor" toolbar will open on the right side of our screen. Next, under "Format", we select the "Color" dropdown menu.

Then, under the color dropdown menu we can select the color we would like to use to fill our bars.

There are endless options for customizing the color of our bars! However, we must be sure to keep the principles of designing good graphs in mind when choosing our color.
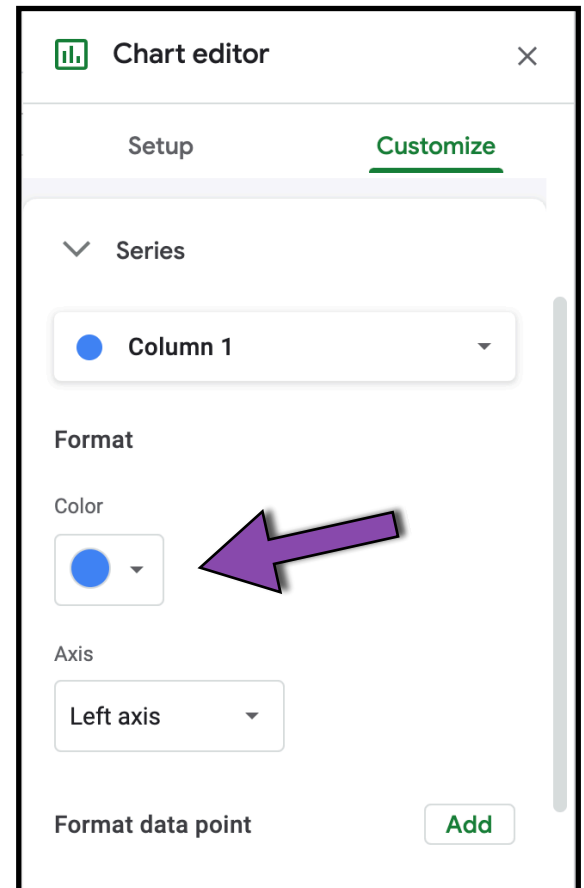
We've now created a Histogram using Google Sheets!