

# WPHS Science Research Program

## Graphing in Microsoft Excel Part 1: Column Charts

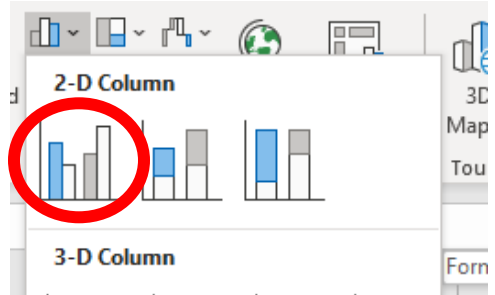
**SWBAT:** Use Microsoft Excel to create and edit a “column chart”

THESE DIRECTIONS ARE FOR A PC DESKTOP VERSION OF EXCEL. PLEASE SEE THE VIDEO TUTORIAL HERE FOR IPAD EXCEL:

<https://youtu.be/YIUzSDOmQHI>

Video tutorial explaining the following are here: [https://youtu.be/h9F2jly\\_MqM](https://youtu.be/h9F2jly_MqM)

- 1) Download, save & open the Excel File “Average Monthly Temperatures Practice Data”. Open in the Desktop version of Microsoft Excel.
- 2) **Select all the data, including the headings**
- 3) Select “Insert” tab, then “Columns or Bar chart” icon
- 4) Choose “2D clustered column”



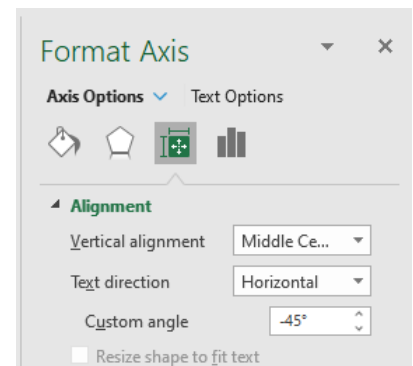
### Creating an appropriate title:

- 5) Change the title to “Average Monthly Temperatures (2010-2019)”, Bold, Font size 16, Calibri

### Editing axes:

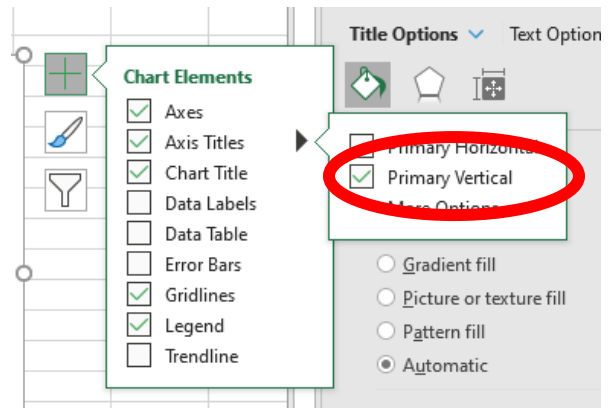
(NOT AN AVAILABLE OPTION WITH IPADS)

- 6) Change the names of the month to Bold, Font size 10, Calibri
- 7) Make sure the alignment for the names of the month are set to: vertical: middle center, Text direction: horizontal, Custom angle: -45
- 8) Change the y-axis (vertical) to Font size: 14, Calibri



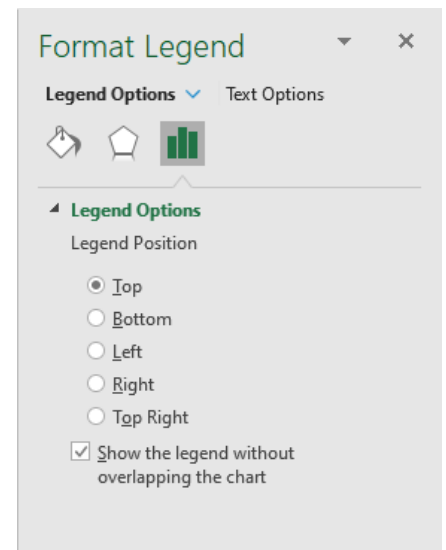
## Creating appropriate labels for axes:

- 9) Add in a title for the y-axis (vertical).  
Chart Elements: Axis Title: Primary Vertical
- 10) Change the title of the y-axis to  
"Temperature (F)", Font size 16, Calibri



## Editing the Legend:

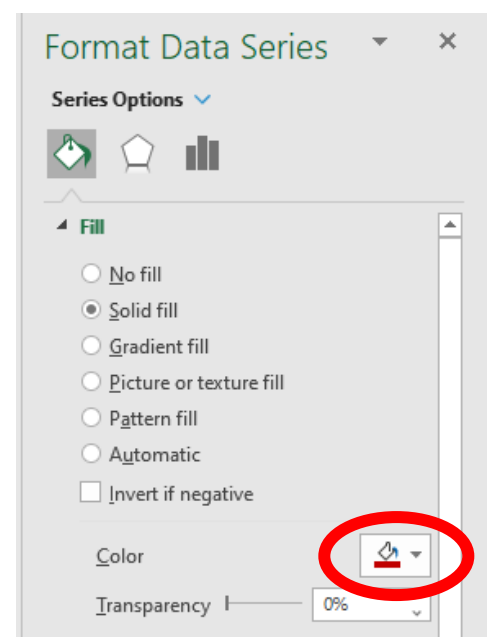
- 11) Move legend to the top by selecting "Format Legend: Legend Options: Top". Check the box for "Show the legend without overlapping the chart"



## Changing colors of the bars:

(NOT AN AVAILABLE OPTION WITH IPADS)

- 12) Change the color of the bars so that **New York is in Red** and **Seattle is in Blue**. Click on one of the bars for New York. All of the NY bars should be selected.
- 13) Change colors by clicking "Format Data Series: Fill: Solid Fill", then choose color.
- 14) Do the same steps above for the Seattle bars.

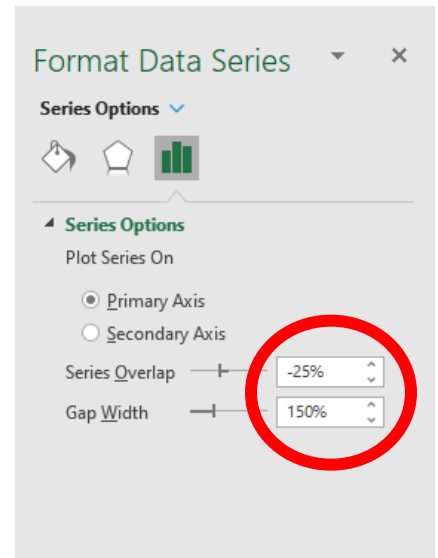


## Changing the width & spacing of the bars:

(NOT AN AVAILABLE OPTION WITH IPADS)

15) Make the bars wider and the space between months smaller. Select/Click on one of the bars for either city. All of the bars for that city should be selected.

16) Go to “Format Data Series: Series Options”.  
**Change series overlap to -25% and gap width to 150%**



**Be sure to save your work! Save file as “Your first and last name Column Graph 12 10 20”. Upload to Schoology by Friday 12/11/20**

