# Advanced Google Sheets

This document covers some more advanced topics in the Google Sheets web application. This covers more about formatting than programming (using functions in cells). This will hopefully give you some ideas for things you can try yourself.
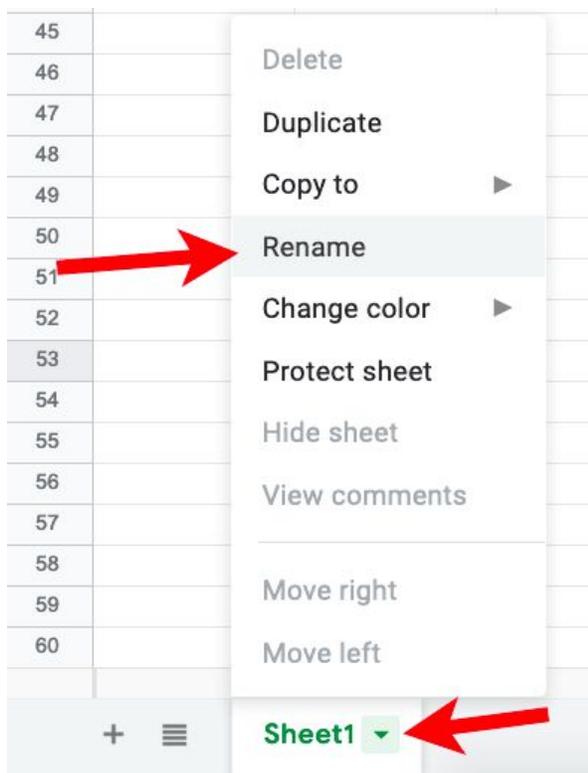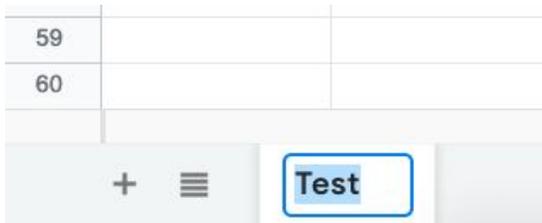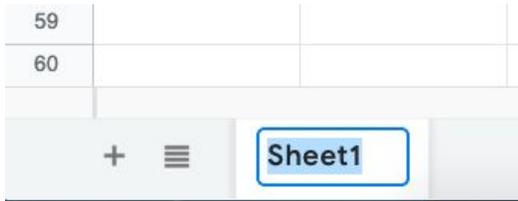
Sheets

Each Google Sheets document has one or more sheets. Each sheet contains rows and columns of cells. When you create a new document it has one sheet, which you can see at the bottom of the window:
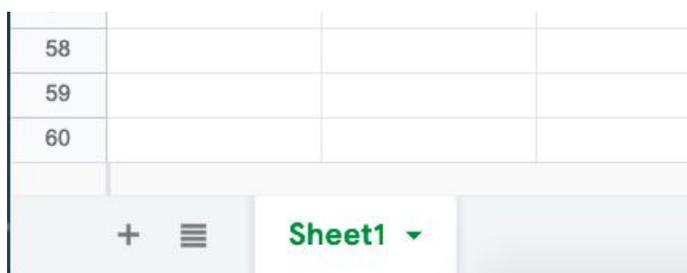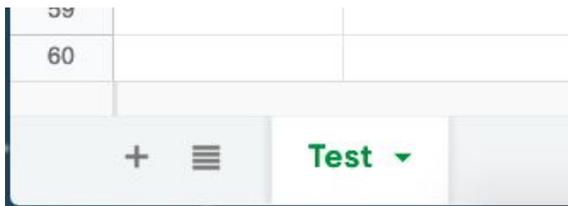

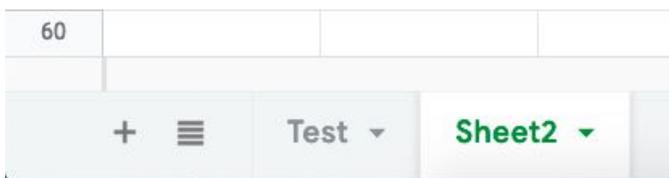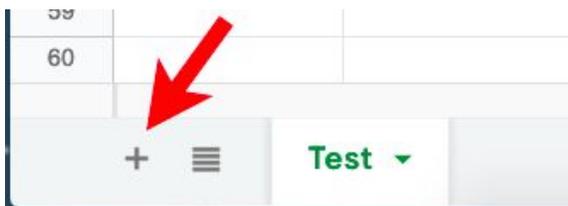You can rename the the sheet by clicking on the down arrow next to the name:

This highlights the name and you can type in the new one:
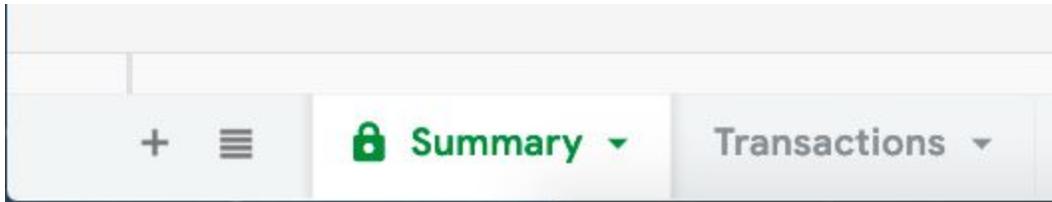

And click the Return key to change the name:

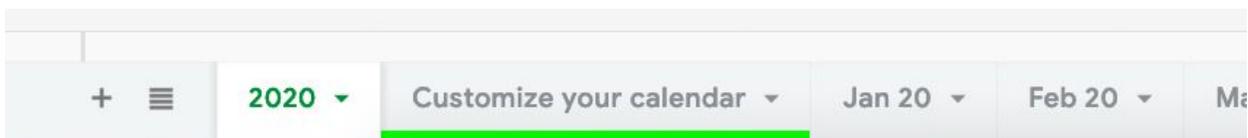You can click the "+" button to add a new sheet:

Some of the built-in templates use multiple sheets. For example, the Monthly budget uses two sheets

You enter the income and expense transactions on the second sheet and they are summarized on the first (Summary) sheet.

The Calendar template has one sheet for the year and another for each month:

Many of the templates use various sheets for their task. The first sheet usually has instructions on how to use the template and what you can change.
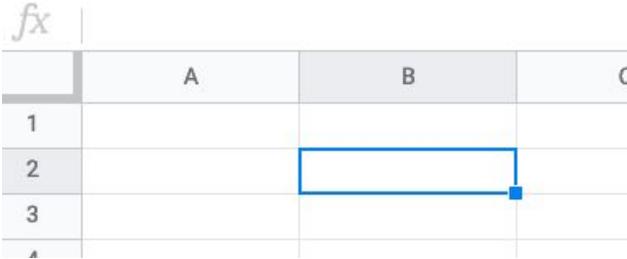
Selecting Cells

To select one cell, simply click on it:

It will be surrounded by a blue border:

To select a rectangle of cells drag from one corner to the opposite corner:

The cells will be highlighted with a blue background.

To select all cells click in the upper left corner:
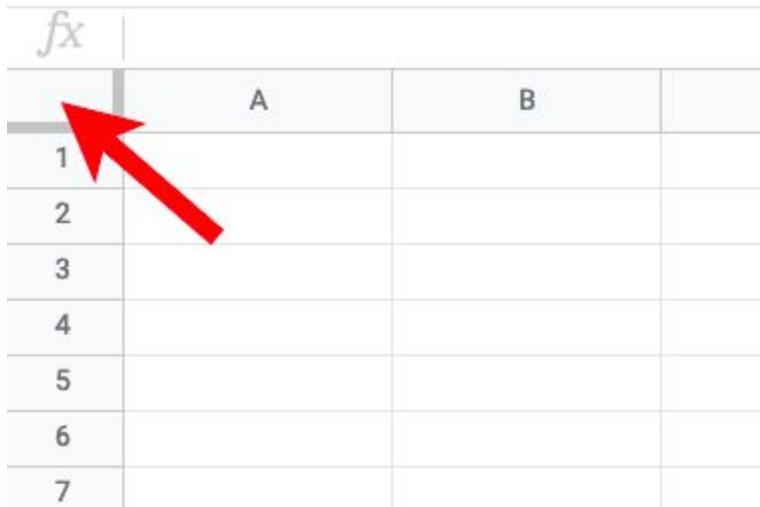
All the cells get the blue background:
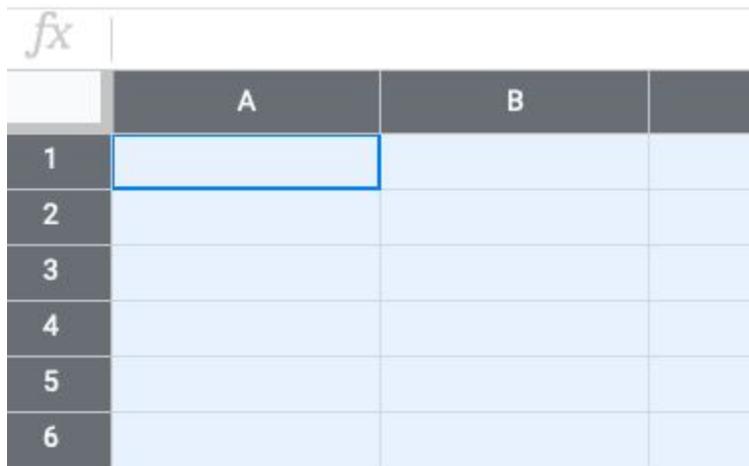
To highlight a column, click on the alphabetic column header:
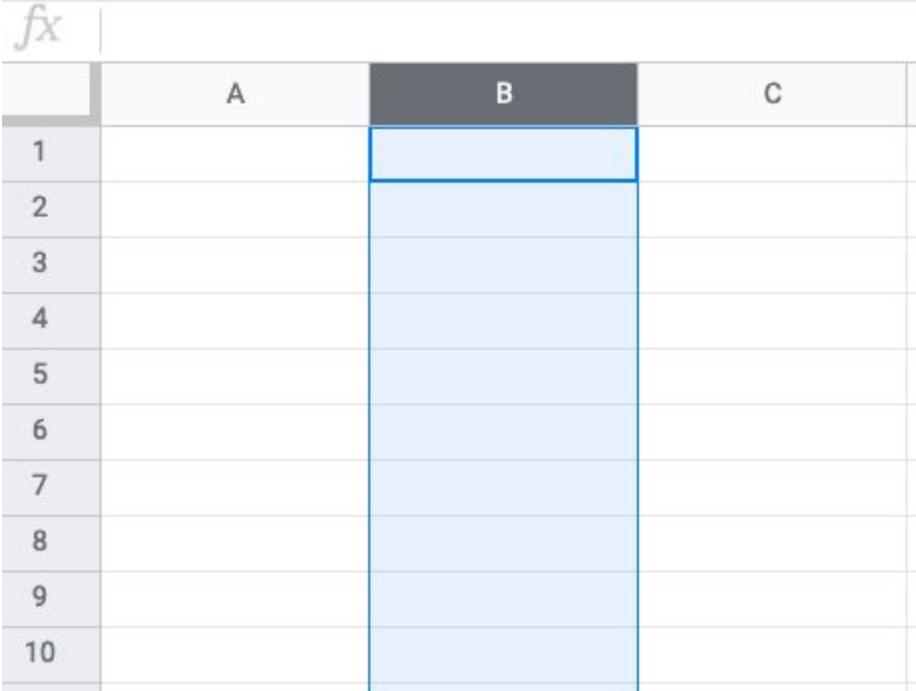
To highlight a row of cells, click on the numeric row number:
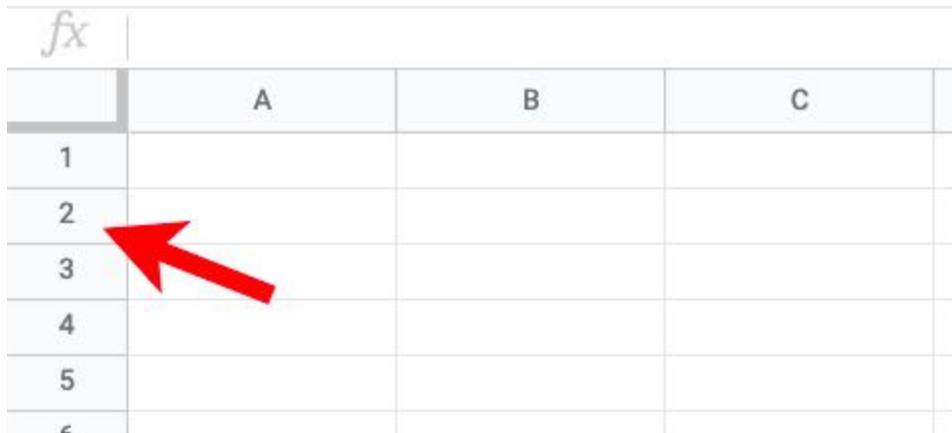
The row is highlighted in a blue background:
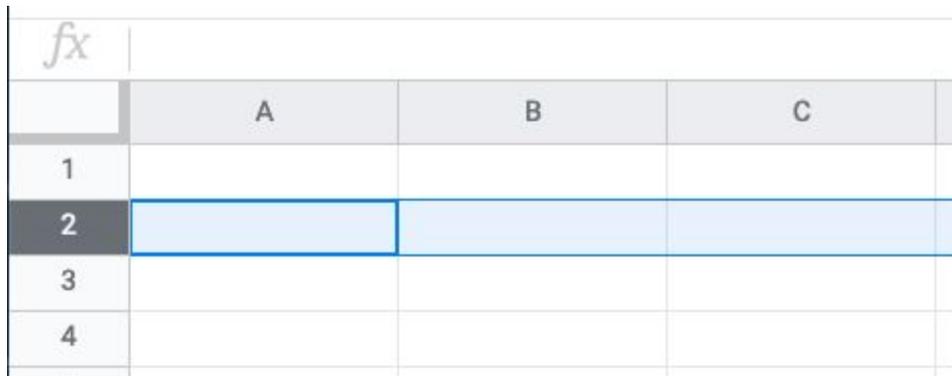
Entering Sequences

You can easily enter a sequence of numbers or dates into a row or column of cells. Enter two numbers in the sequence into two cells and highlight them:

Then click on the solid blue rectangle at the lower right corner of the bottom cell and drag down as many rows as you need and let go:

The sequence is based on the difference between the numbers. So, if you use 1 and 2 you will get 1, 2, 3, 4, etc.

Google Sheets is very smart about sequences. In some cases, you only need to enter data in the first cell:
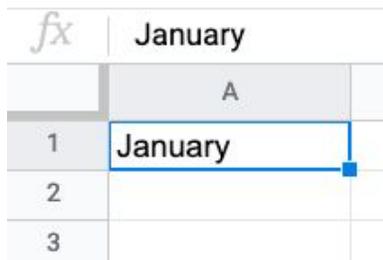
fx	January
	A
1	January
2	
3	

If you drag down to row 12, you will get a list of months:

fx	January
	A
1	January
2	February
3	March
4	April
5	May
6	June
7	July
8	August
9	September
10	October
11	November
12	December

If you enter a date

	A
	9/10/2020

fx 9/10/2020

	A
1	9/10/2020
2	
3	

You can create a sequence of dates:

fx 9/10/2020

	A
1	9/10/2020
2	9/11/2020
3	9/12/2020
4	9/13/2020
5	9/14/2020
6	9/15/2020
7	9/16/2020
8	9/17/2020
9	9/18/2020
10	9/19/2020
11	9/20/2020
12	9/21/2020
13	

You can also do days of the week:

You can also put sequences into rows:

fx	100				
	A	B	C	D	E
1	100	200			
2					

If you drag the solid rectangle to the right, you get a sequence

X	100				
	A	B	C	D	E
1	100	200	300	400	500
2					

This works for all types of sequences. If we put "Sunday" into a cell and drag the blue rectangle to the right

fx	Sunday						
	A	B	C	D	E	F	G
1	Sunday						
2							

we get this:

fx	Sunday						
	A	B	C	D	E	F	G
1	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
2							

Formatting Buttons

There is a row of formatting buttons below the Google Sheets menu:
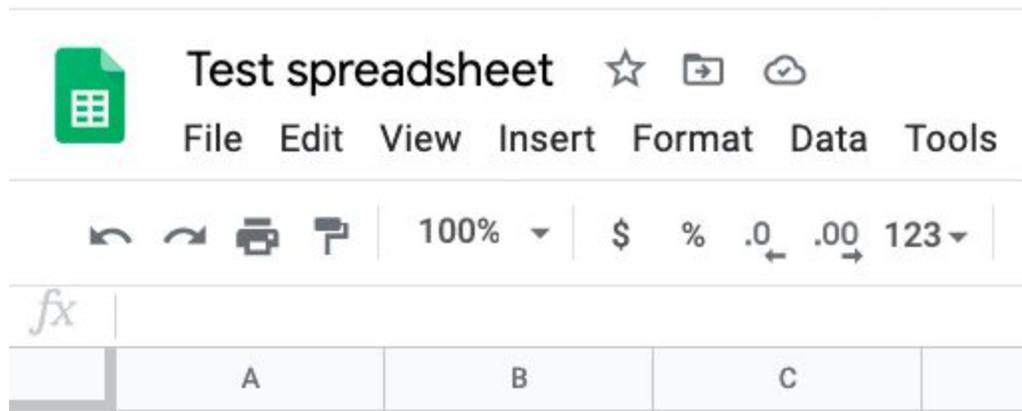
They are very handy. You can control the zoom level:
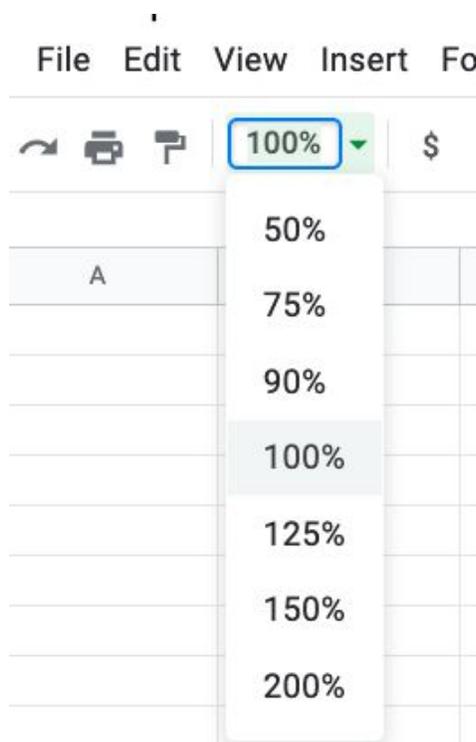
Format selected cells as currency:

Format selected cells as percent:
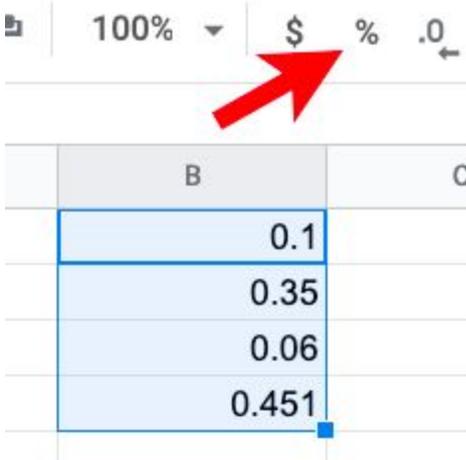
Reduce the number of decimal points:

The button to the right of the decrease decimal points increases them:
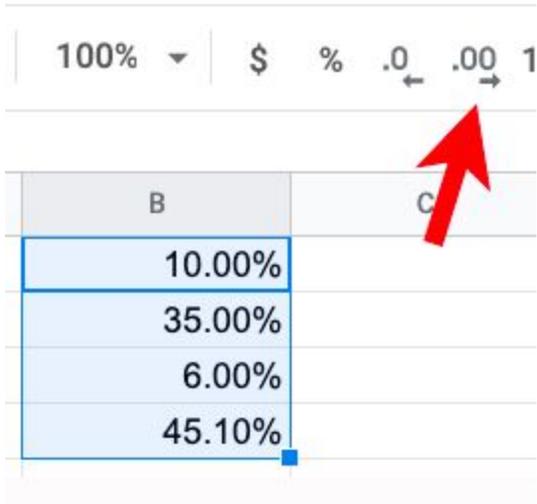
The menu to the right of that button gives you many options:

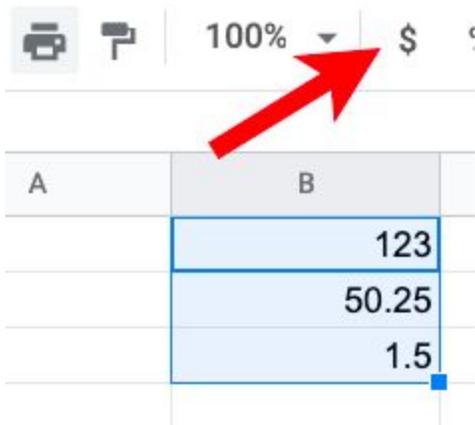|	
Automatic	
Plain text	
Number	1,000.12
✓ Percent	10.12%
Scientific	1.01E+03
Accounting	$ (1,000.12)
Financial	(1,000.12)
Currency	$1,000.12
Currency (rounded)	$1,000
Date	9/26/2008
Time	3:59:00 PM
Date time	9/26/2008 15:59:00
Duration	24:01:00
#,##0	1,235
3:59 PM	
Fri, Sep 26, 2008	
More Formats ▶	
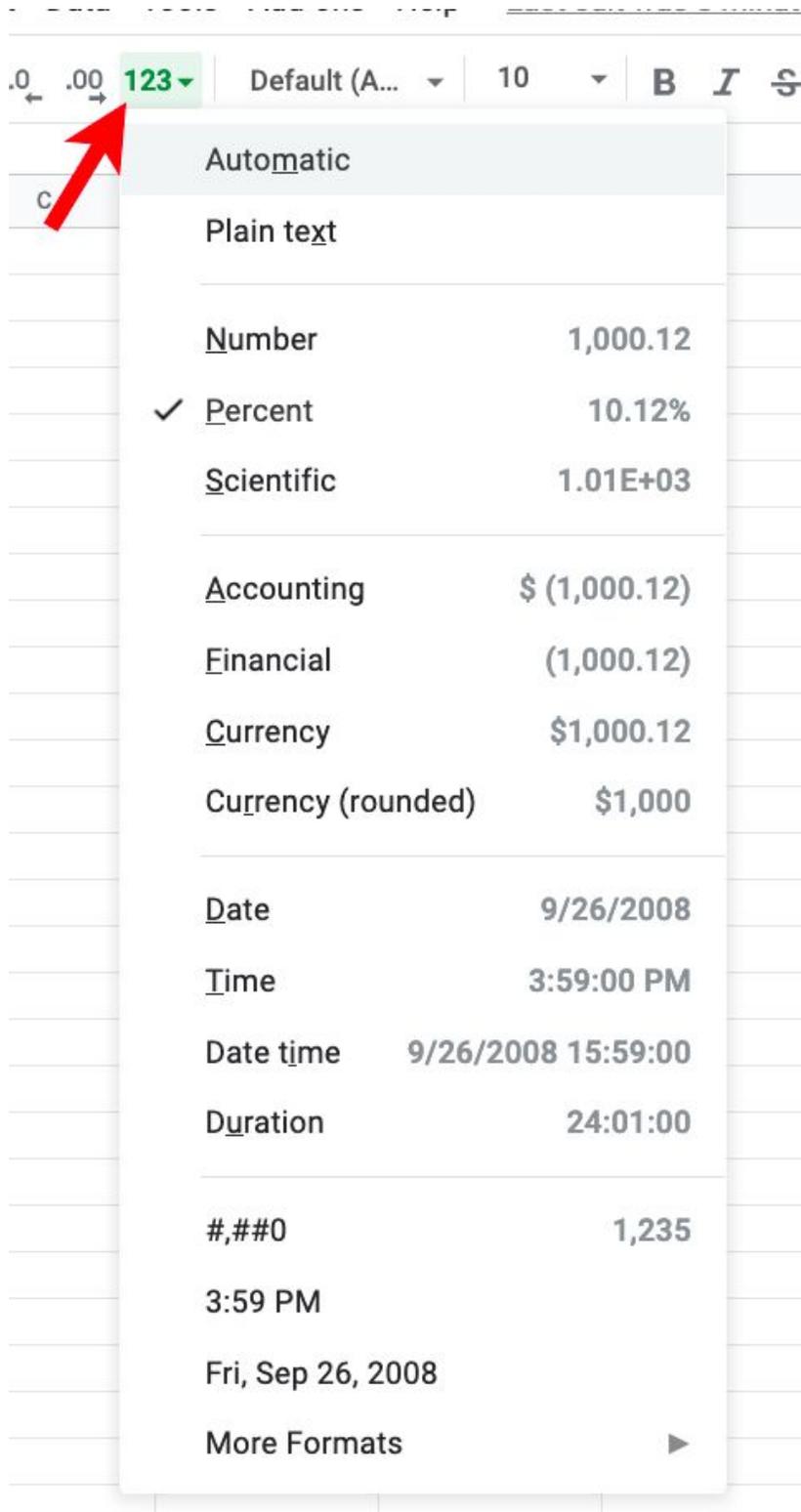
The next set of buttons
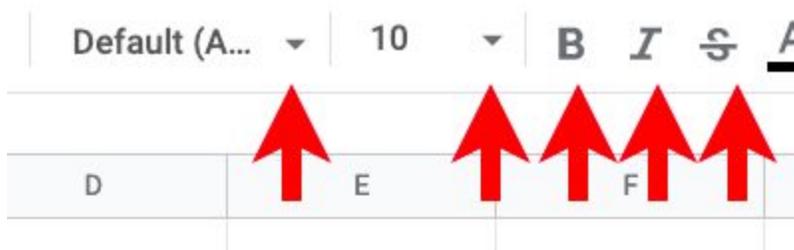
let you change the font, text size, bold, italic or strikethrough selected cells.

The next buttons:

let you change the text color, background color, borders, merge cells, the horizontal and vertical alignment.

Merging will combine multiple cells into one. This is often done for headers. For example, if we have a this table:

We can select cells A1 to C1 and merge them.

	My Checkbook		
	A	**B**	**C**
	My Checkbook		
	Date	**Payee**	**Amount**
	9/10/2020	Mickey Mouse	$100.00

We can then center this merged cell and increase the text size:

	A	B	C
1		**My Checkbook**	
2	**Date**	**Payee**	**Amount**
3	9/10/2020	Mickey Mouse	$100.00

\

The merged and centered header looks nicer.

The next button controls text wrapping. If you have a cell that where the text is wider than the width of the cell, the first option will let the text overflow onto the cells to the right which is the default behavior:
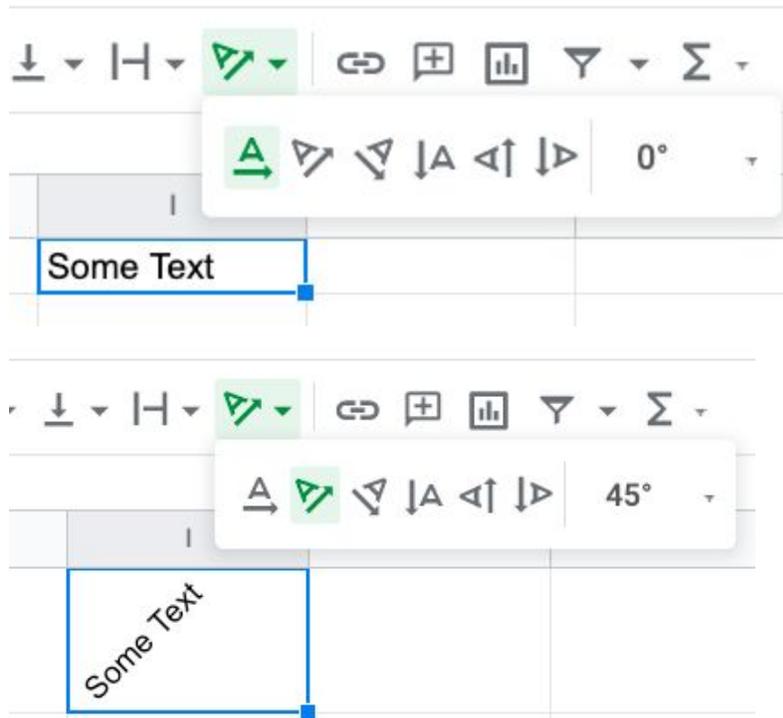
		J	
this is a cell with lots of text in it			
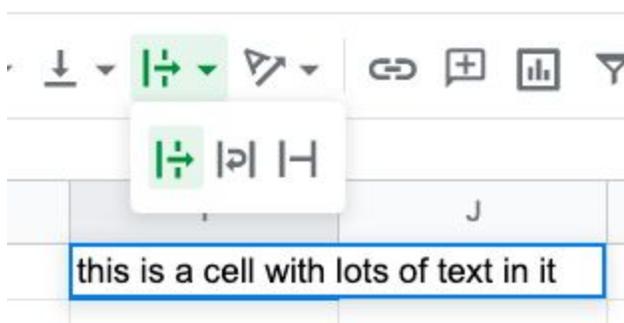
The second option will wrap the text and make the row taller:

this is a cell
with lots of text
in it
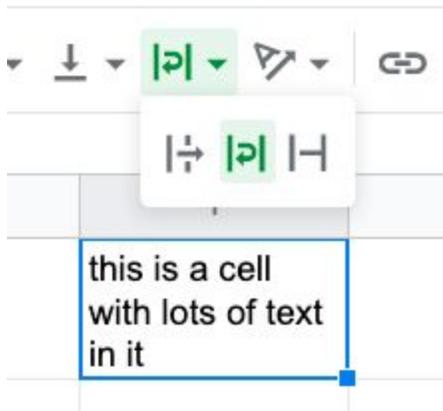
The third option will clip the display of the text at the right border of the cell. The text is still in the cell but is not visible.
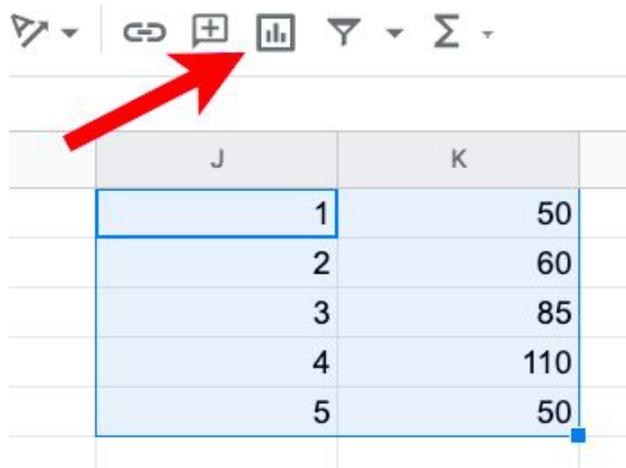
this is a cell with

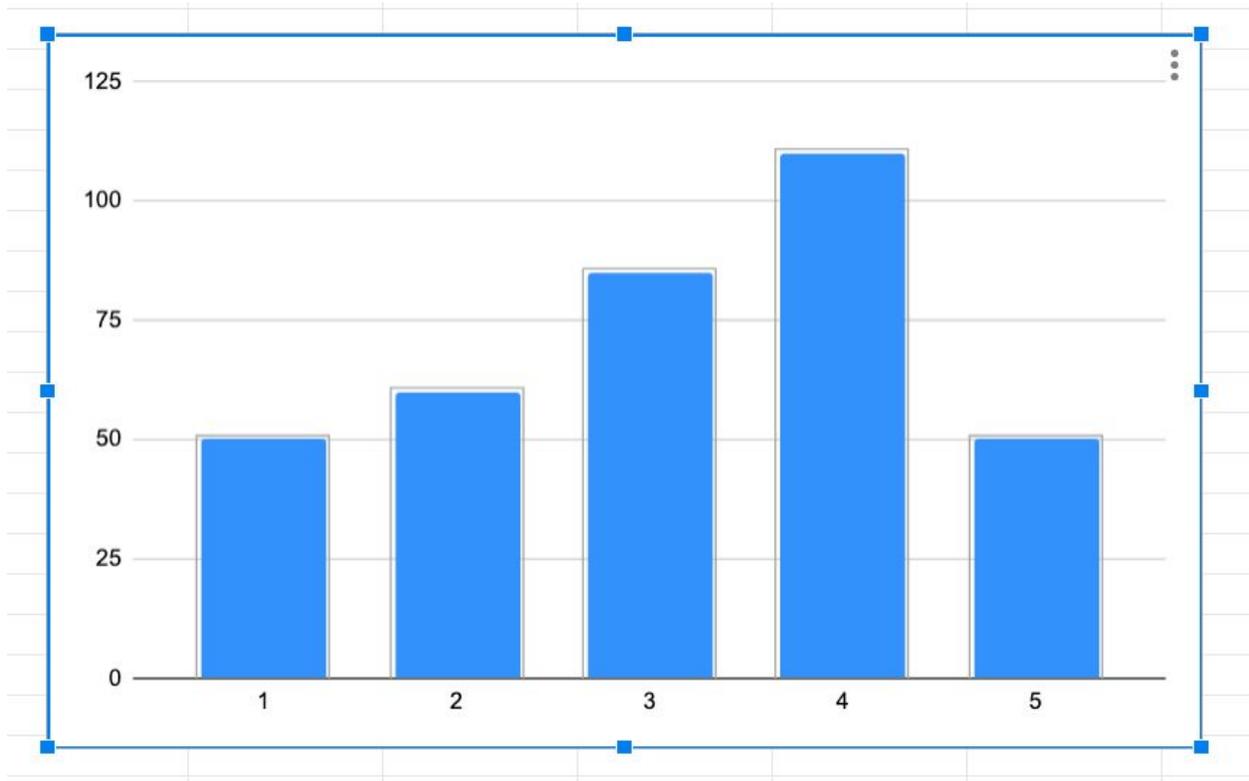The next button lets you rotate the text in a cell

The right most option lets you set a specific angle for the text.

The chart button lets you select some cells and chart them:

Which adds a chart that looks like this:

There are many types of charts and many ways to customize them.

There are controls on the right to change the chart:

You can even change to a different kind of chart:
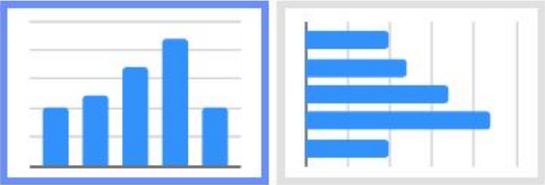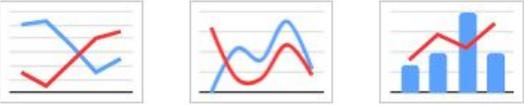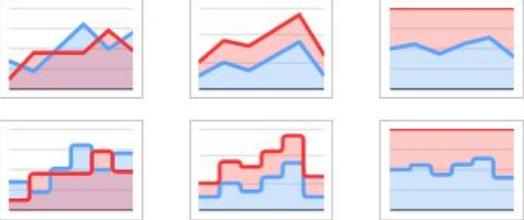
Table Formatting Example

Let's say you want to track your weight, blood pressure and temperature every day. You could make a simple spreadsheet by entering the headers, selecting them and clicking the Bold button to make them bold text:

	A	B	C	D
	fx	Date		
1	**Date**	**Weight**	**Blood Pressure**	**Temperature**
2				

Then enter our first date in column A, row 2 and drag down to create a couple of weeks of dates:

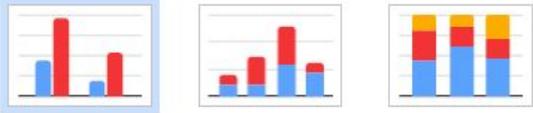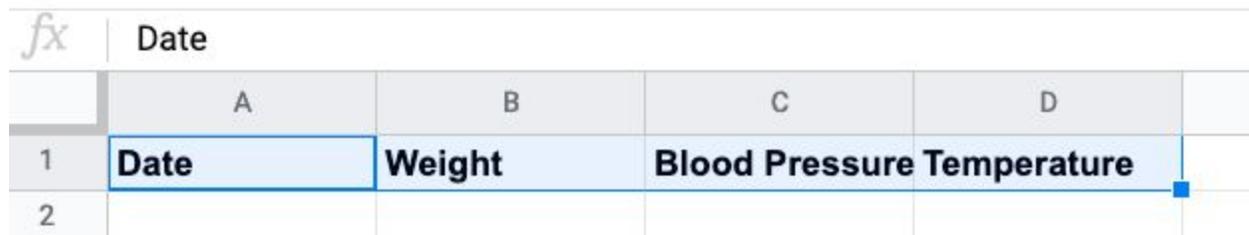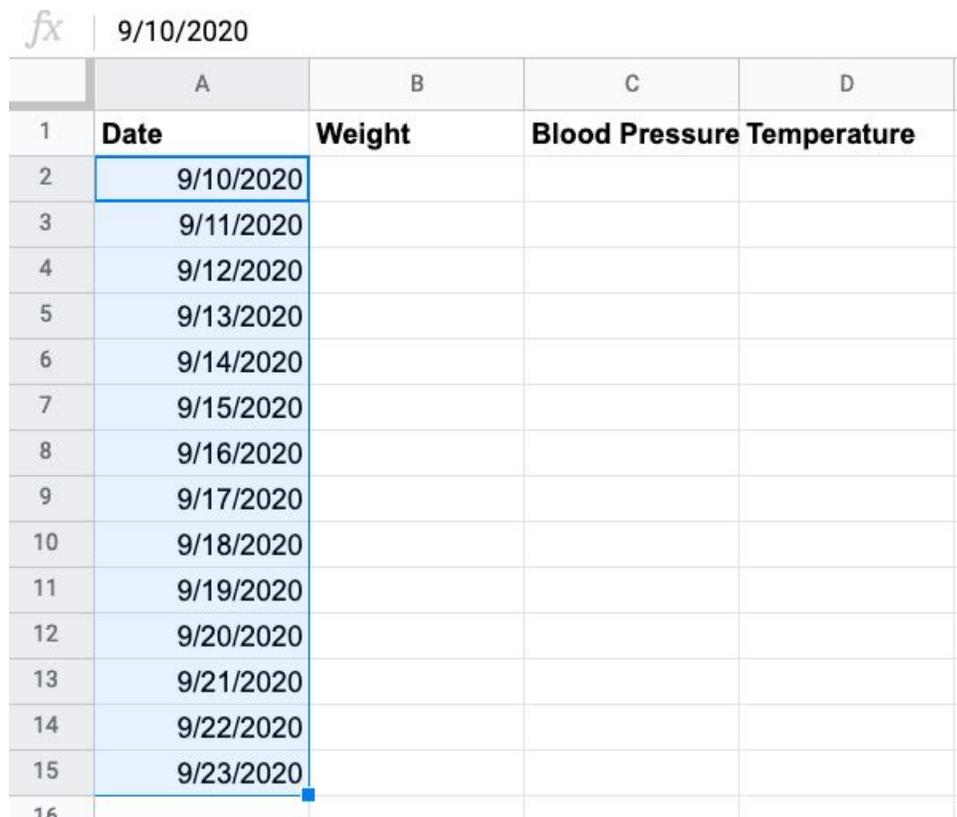|	A	B	C	D
	fx	9/10/2020		
1	**Date**	**Weight**	**Blood Pressure**	**Temperature**
2	9/10/2020			
3	9/11/2020			
4	9/12/2020			
5	9/13/2020			
6	9/14/2020			
7	9/15/2020			
8	9/16/2020			
9	9/17/2020			
10	9/18/2020			
11	9/19/2020			
12	9/20/2020			
13	9/21/2020			
14	9/22/2020			
15	9/23/2020			
16				

We can use the format button to make the dates nicer. Click on the column A header cell to select the cells and use the format button:

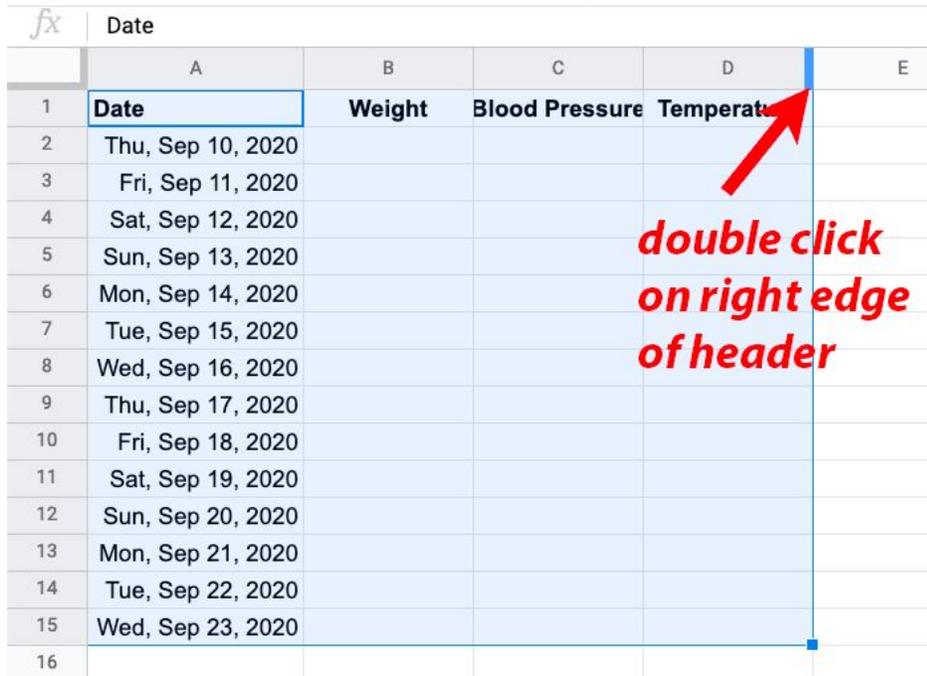We can select select the columns and fix their width by double clicking on the dark blue rectangle at the edge of the rightmost header:

double click
on right edge
of header

We can now use the Alternating Colors option in the Format menu
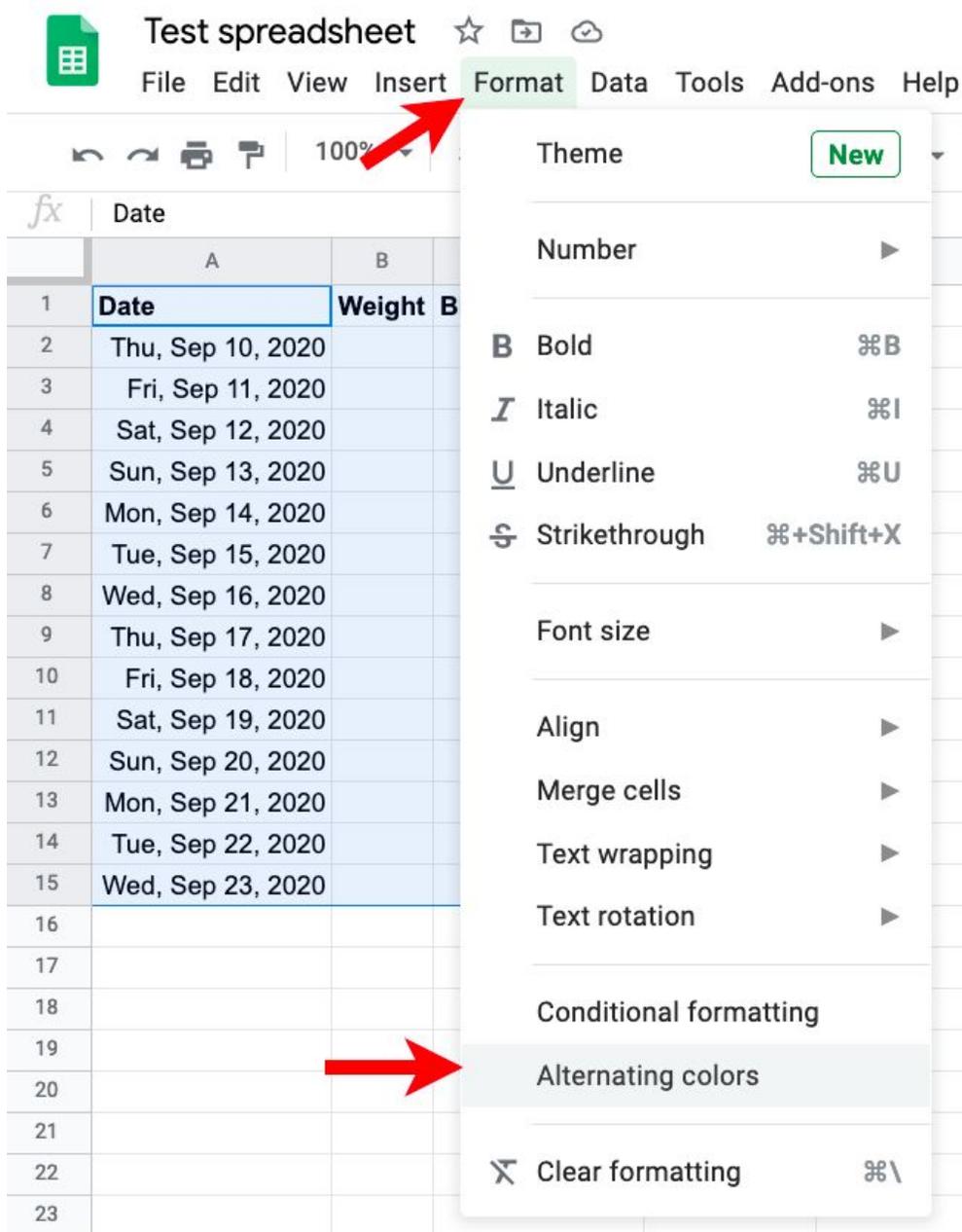
To set a header color and a background color for alternating rows:

	A	B	C	D
1	**Date**	**Weight**	**Blood Pressure**	**Temperature**
2	Thu, Sep 10, 2020			
3	Fri, Sep 11, 2020			
4	Sat, Sep 12, 2020			
5	Sun, Sep 13, 2020			
6	Mon, Sep 14, 2020			
7	Tue, Sep 15, 2020			
8	Wed, Sep 16, 2020			
9	Thu, Sep 17, 2020			
10	Fri, Sep 18, 2020			
11	Sat, Sep 19, 2020			
12	Sun, Sep 20, 2020			
13	Mon, Sep 21, 2020			
14	Tue, Sep 22, 2020			
15	Wed, Sep 23, 2020			
16				

The right part of the window has an editor for setting the colors and other options:
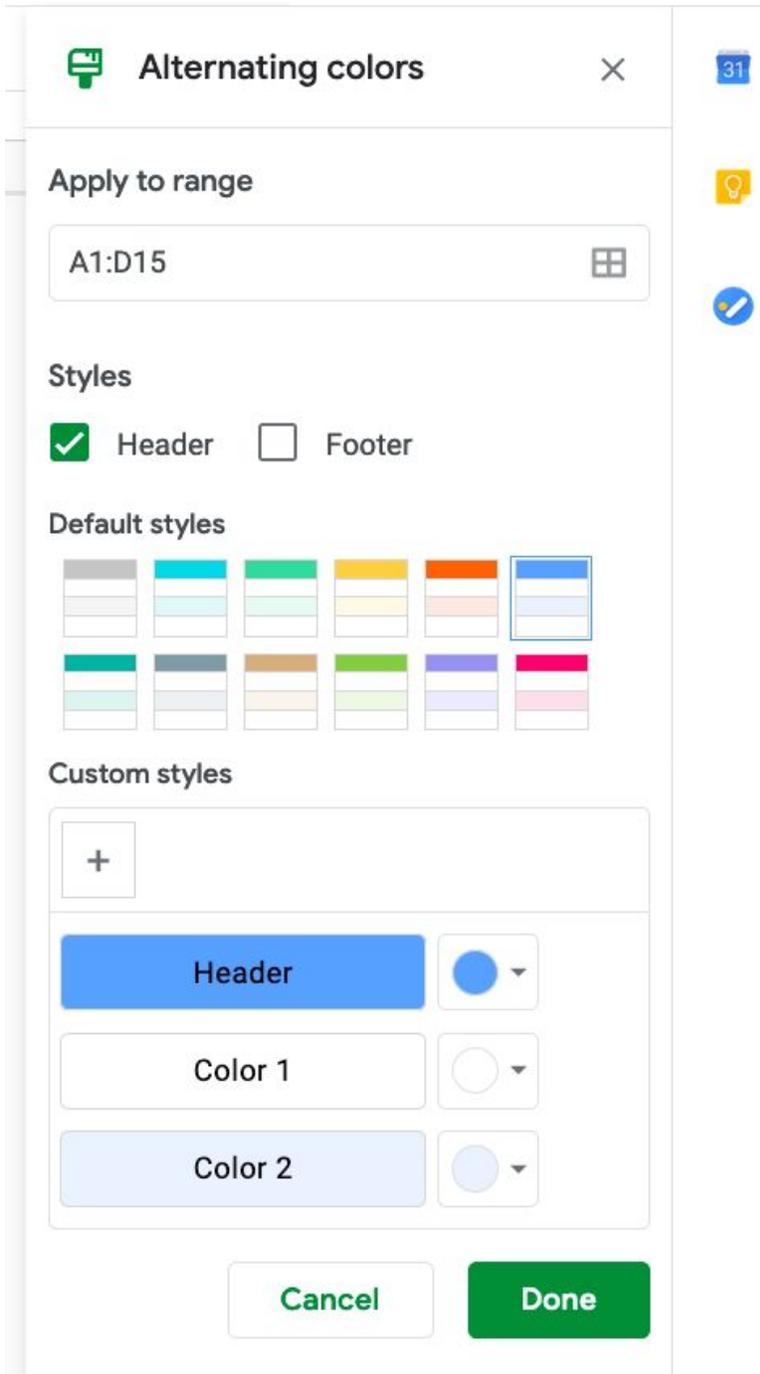
If the table has a footer (in this case to show the average weight, pressure and temperature) you can click the Footer box to give that a different color.

Conditional Formatting

If you put some data into our chart:

	A	B	C	D
1	**Date**	**Weight**	**Blood Pressure**	**Temperature**
2	Thu, Sep 10, 2020	150	120 / 80	98.6
3	Fri, Sep 11, 2020	151	125 / 90	98.1
4	Sat, Sep 12, 2020	150	120 / 90	98.3
5	Sun, Sep 13, 2020	153	130 / 90	98.6
6	Mon, Sep 14, 2020	152	125 / 85	98.5
7	Tue, Sep 15, 2020	149	120 / 80	101.2
8	Wed, Sep 16, 2020	150	125 / 90	102.4
9	Thu, Sep 17, 2020	153	120 / 90	101.6
10	Fri, Sep 18, 2020	155	130 / 90	98.6
11	Sat, Sep 19, 2020	153	125 / 85	98.3
12	Sun, Sep 20, 2020	152	122 / 82	98.5
13	Mon, Sep 21, 2020	152	115 / 75	98.6
14	Tue, Sep 22, 2020	150	119 / 82	98.2
15	Wed, Sep 23, 2020	151	135 / 95	98.2
16				

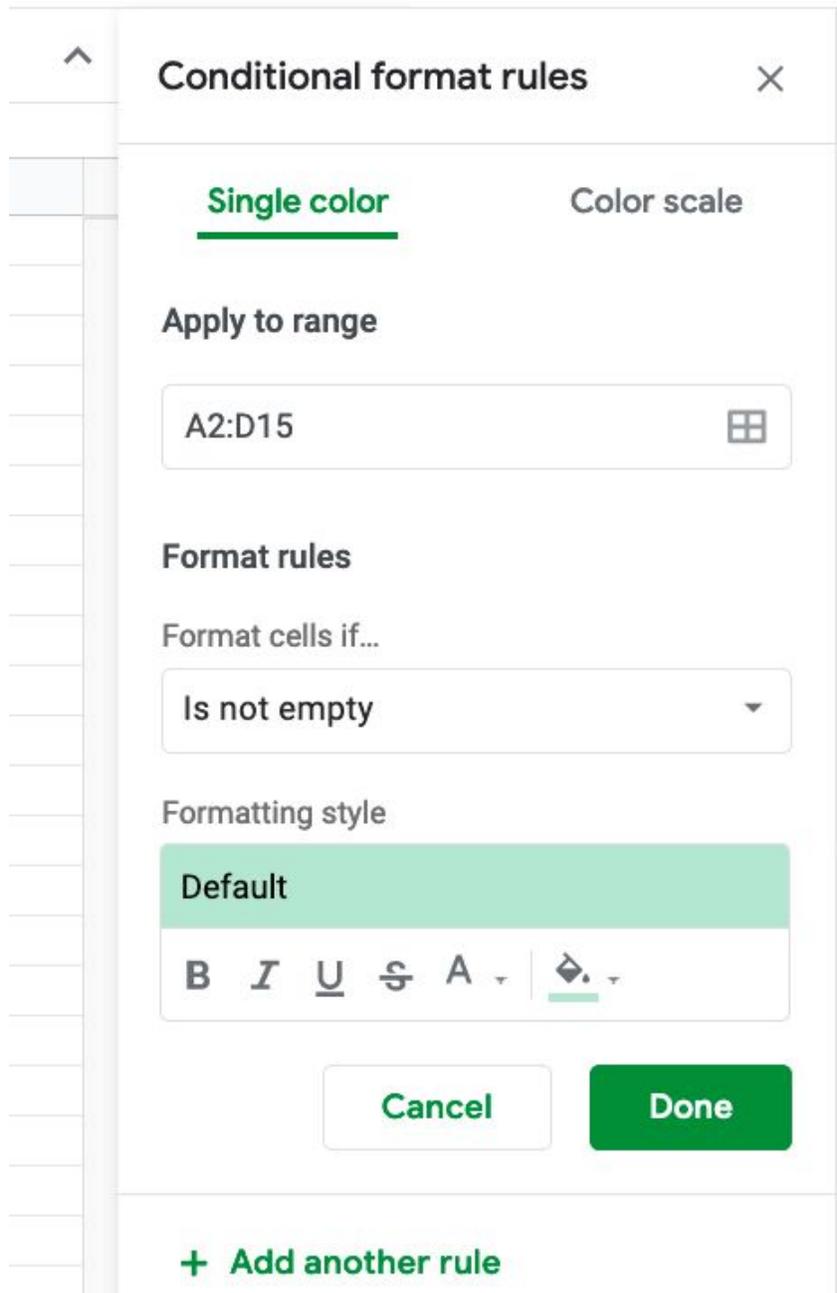It might be helpful to highlight all the temperatures above 99. This can be done by selecting the column D and then the Conditional Formatting option in the Format menu:

This brings up an editor on the right hand part of the window:

The Format rules menu lets you select how you want to choose the cells to format differently. We can click on the "Format cells if... " menu and select the "Greater than" option:

Conditional format rules

Single color   Color sca

Apply to range

A2:D15

Format rules

Is empty
Is not empty
Text contains
Text does not contain
Text starts with
Text ends with
Text is exactly
Date is
Date is before
Date is after
→ Greater than
Greater than or equal to
Less than
Less than or equal to
Is equal to
Is not equal to
Is between
Is not between
Custom formula is

We then enter 99 for the value:

You can click on the Formatting style to choose a standard format:

There are buttons below the color area to change the text to bold, italic or change the text or background color, so we can make the text bold:
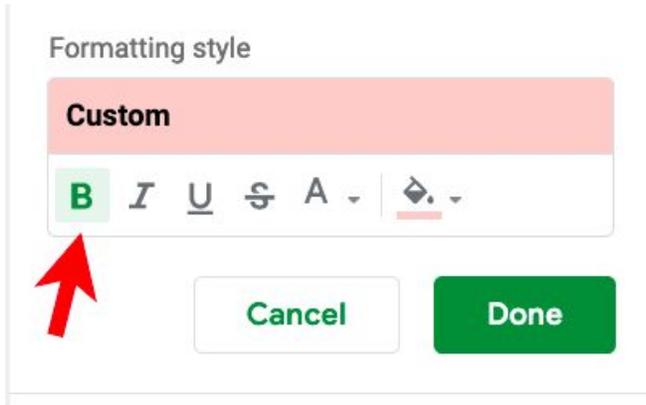
The table now looks like this:

	A	B	C	D
1	**Date**	**Weight**	**Blood Pressure**	**Temperature**
2	Thu, Sep 10, 2020	150	120 / 80	98.6
3	Fri, Sep 11, 2020	151	125 / 90	98.1
4	Sat, Sep 12, 2020	150	120 / 90	98.3
5	Sun, Sep 13, 2020	153	130 / 90	98.6
6	Mon, Sep 14, 2020	152	125 / 85	98.5
7	Tue, Sep 15, 2020	149	120 / 80	**101.2**
8	Wed, Sep 16, 2020	150	125 / 90	**102.4**
9	Thu, Sep 17, 2020	153	120 / 90	**101.6**
10	Fri, Sep 18, 2020	155	130 / 90	98.6
11	Sat, Sep 19, 2020	153	125 / 85	98.3
12	Sun, Sep 20, 2020	152	122 / 82	98.5
13	Mon, Sep 21, 2020	152	115 / 75	98.6
14	Tue, Sep 22, 2020	150	119 / 82	98.2
15	Wed, Sep 23, 2020	151	135 / 95	98.2
16				

There are many other advanced features of Google Sheets but hopefully this has given you some ideas of things you can try.