



CRANE COUNTER INSTRUCTIONS

MADE BY:

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first step: TABLE FOR DATA COLLECTION

MAKE A TABLE FOR DATA COLLECTION:

- **select the table area:** click on a cell and drag the cursor down and sideways, selecting two columns and the number of rows you need (one for each class)
- on the top left cell you write CLASSES
- On the up right cell you will write Nr. OF CRANES
- Format your table - give its cells a border: click on BORDERS (*bordi*) and click the format you prefer.
- Format you table - highlight the title cells using a background color. You do that by: going up to FILL COLOR (*colore riempimento*) and click it, and then you select the color that you prefer and click on it

CLASSES	N. of CRANES
1A	10
1I	20
2A	30
2F	40
2G	50
3A	60
3F	70
3G	80
3I	90
TOTAL	450

Step 1 final part: MAKING THE TOTAL

- Write “TOTAL” underneath the last row of the CLASS column and color the cell to separate it from the data cells.
- Insert a function to find the total nr of cranes: At the bottom of the Nr. OF CRANES column write =SUM (=somma()). In the brackets select the cells that show the number of cranes for each class. Press enter.
- Doing these steps you will get the total number of cranes you made in your school!

The screenshot shows an Excel spreadsheet with the following data:

	A	B
1	Class	Nr. cranes
2	1^A	10
3	1^I	79
4	2^A	30
5	2^F	40
6	2^G	50
7	3^A	60
8	3^F	70
9	3^G	80
10	3^I	100
11	Total	=SOMMA(B2:B10)
12		

The formula bar at the top shows: `=SOMMA(B2:B10)`. A tooltip over the result cell (B11) displays `519`.

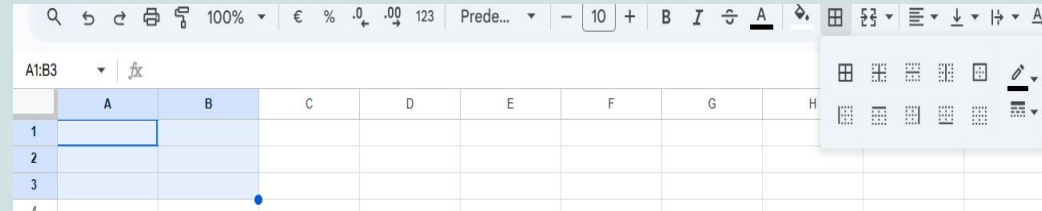
2nd step: THERMOMETER DATA TABLE

You need another table that contains the information you will show in the thermometer chart. Three data are needed:

- the aim (your target number of cranes) (“Aim”),
- the number of cranes already made (“Made”),
- how many are still left to reach the aim (“Left”).

AIM (first row):

- Create a table 3x2
- Write “Aim” in the left column in the first cell
- Write the aim in the first cell, second column (1000 in this example)



A	B
Aim	1000

2nd step: MADE AND LEFT

MADE (second row):

- Write MADE in the left column, second cell
- Write “=somma(b2:b10)”, which is the sum of the results of the classes of the first table

	A	B	C	D	E
1	CLASS	N. OF CRANES		Aim	1000
2	1A	23		Made	=SOMMA(B2:B10)
3	1I	67			
4	2A	20			
5	2F	345			
6	2G	2			
7	3A	1			
8	3F	3			
9	3G	6			
10	3I	12			
11	TOTAL	479			
12					

	D	E
Aim		1000
Made		479
Left		

LEFT (third row):

- Write LEFT in the left column, third cell
- in the right column, third cell you calculate the difference between aim and made: “=E1-E2”. The table is done!!!

D	E
Aim	1000
Made	479
Left	=E1-E2

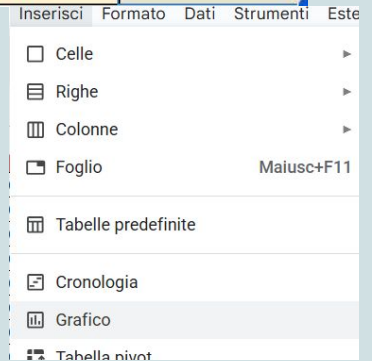
D	E
Aim	1000
Made	479
Left	521

3rd step: THERMOMETER CHART

- Select the cells next to 'made' and 'left' in the right column of your second table

aim	1000
made	450
left	550

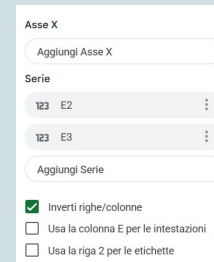
- In the menu at the top of the screen, click on INSERT (*inserisci*) and select CHART (*grafico*)



- Chart type: on the column that appears on the right select STACKED COLUMNS (*colonne in pila*)

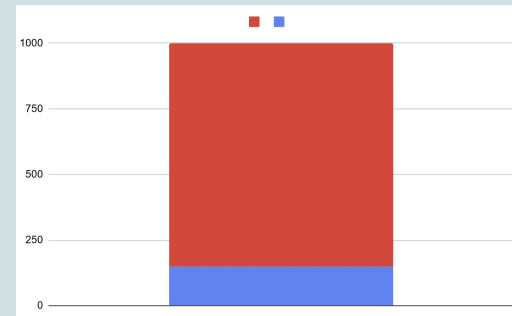


- Click on X AXIS (*asse x*) and invert lines/columns (*invertire righe/colonne*)



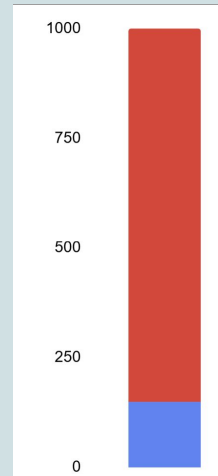
3rd step: THERMOMETER CHART

At this point, the chart looks like the top image.
We want to make it look like a thermometer.



A) Remove the data key and the grid lines

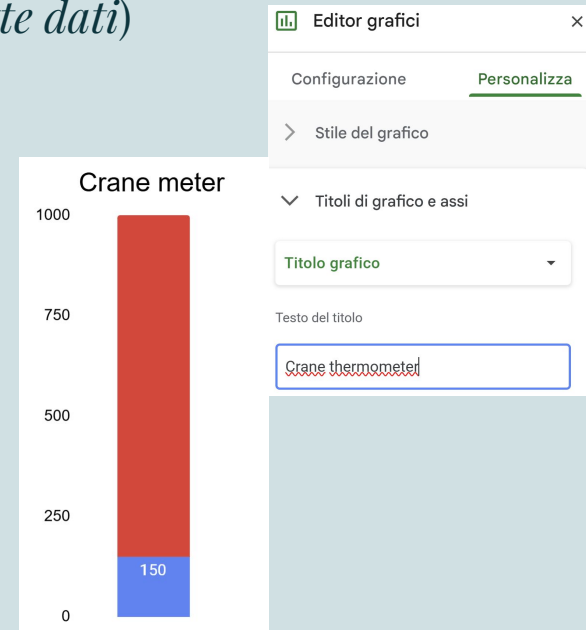
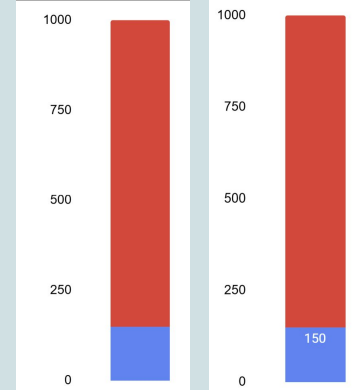
- Click on CUSTOMIZE (*personalizza*) then SERIES (*serie*) APPLY TO ALL SERIES (*applica a tutte le serie*) COLUMN 1 (*colonna 1*) scroll down and click on DATA LABELS (*etichette dati*)
- Then go on CUSTOMIZE(*personalizza*), KEY (*legenda*), POSITION (*posizione*) and select NONE (*nessuna*)
- Staying on CUSTOMIZE(*personalizza*) select GRID LINES (*linee della griglia*) and deselect MAIN GRATE LINES (*linee della griglia principali*).
- Resize the graph making it as thin as you want by clicking on the blue outline of the graph



4th step: CHART TITLE AND LABEL

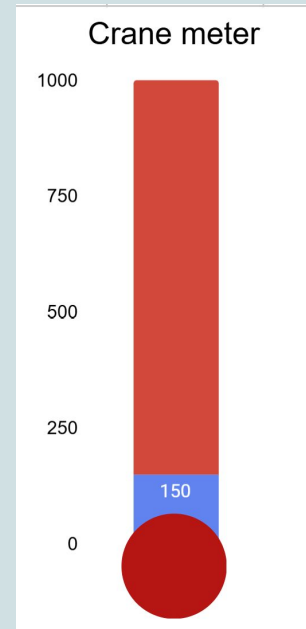
B) Insert the label on the bottom data series and the title

- Click on CUSTOMIZE (*personalizza*) then SERIES (*serie*) APPLY TO ALL SERIES (*applica a tutte le serie*) and select COLUMN 1 (*colonna 1*) scroll down and click on DATA LABELS (*etichette dati*)
- Staying on CUSTOMIZE(*personalizza*) select TITLE (*titolo*) and type in the title of your chart.
- Resize the graph height to make the title fit above it.



5th step: MAKING THE CIRCLE (bulb)

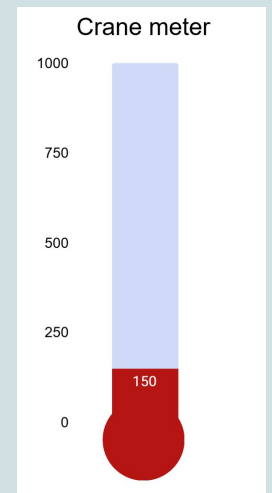
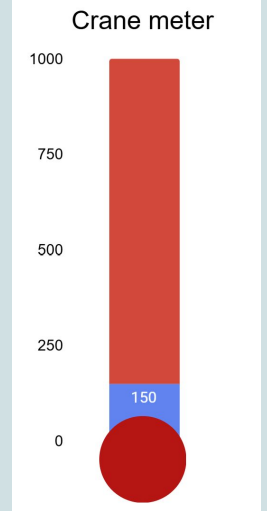
- Click INSERT (*inserisci*)
- Click DRAWING (*disegno*)
- Click the 7th button on the top, where it says SHAPE (*forma*)
- Click again, where there is a list, click SHAPE (*forma*) and there is the drawing of a rectangle
- Click the circle shape (*ovale*)
- Click your mouse **once** and **hold it**, move the mouse (still keeping the left part pressed by your finger), until you achieve your “perfect” circle.
- Click the 13th button on the top, where it says “color border” (*colore bordo*) and click TRANSPARENT (*trasparente*)
- click the 12th button where it’s written “fill color” (*colore riempimento*) and whichever color you want.
- At last, click SAVE AND CLOSE (*salva e chiudi*) at the top right.
Place your circle at the bottom of your thermometer.
- Resize the chart area so the circle fits inside it.



6th step: matching the chart colours

The chart colours should match the circle.

- Double click on the chart and select CUSTOMIZE (*personalizza*) then SERIES (*serie*) APPLY TO ALL SERIES (*applica a tutte le serie*) COLUMN 1 (*colonna 1*)
- Select for column 1 the same colour used for the circle.
- Then select column 2 (*colonna 2*) and choose the colour you prefer for the upper part.



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	A	B	C	D	E
1	CLASS	NR. CRANES		aim	1000
2	1A	10		made	450
3	1I	20		left	550
4	2A	30			
5	2F	40			
6	2G	50			
7	3A	60			
8	3F	70			
9	3G	80			
10	3I	90			
11	TOTAL	450			

