

I first queried the data using a full join including the year, average global temperature, and average yearly temperature for Miami. I then downloaded the .csv and opened the .csv with Google Sheets. I calculated two separate 10 year moving averages beginning from 1781 because there were a lot of missing average yearly temperatures for Miami prior to 1781. I calculated the moving average by creating a new column called "Global 10 Year Moving Average" and going to the 10th cell and inserting "=Average(B2:B11)". I did the same thing for another new column named "Miami 10 Year Moving Average" but instead used data from the average yearly temperature for Miami.

The moving average for both Miami temperatures and global temperatures appear to follow a similar pattern. They both gradually increase slightly over time showing a gradual warming of temperatures. Also there appears to be a sudden drop in averages temperatures a little after 1800 for both Miami and global averages. Miami temperatures appear to be a little more volatile since the line appears to be more jagged while the global temperatures have a smoother line representing their averages. On average, Miami is much hotter than global temperatures which was expected.

Query used:

```
SELECT gd.year as Year, gd.avg_temp as Global_avg_temp, cd.avg_temp as  
City_average_temp from global_data as gd FULL JOIN city_data as cd ON gd.year = cd.year  
where cd.city = 'Miami' AND cd.country = 'United States';
```

Weather Trends - 10 Year Moving Average

