EXPLORE WEATHER TRENDS

OUTLINE OF STEPS TAKEN TO PREPARE THE DATA AND VISUALIZATION

➢ What tools did you use for each step?

SQL was used to extract data from database and excel was used to calculate the moving average and to make the line chart.

SQL query used are:-

1. SELECT *

    FROM global_data;

2. SELECT city

    FROM city_list

    WHERE country = 'India';

3. SELECT year, avg_temp

    FROM city_data

    WHERE country = 'India' and city = 'Amritsar';

➢ How did you calculate moving average?

I calculated the moving average of 10 years by using the command =average (cell2:cell11) and then dragging down till the last value for the remaining ones.

➢ What were your key considerations when deciding how to visualize the trends?

My key consideration was to observe an increase or decrease in moving average temperature.

Since there were some missing values in the temperature column, so I filled it by taking the average of the data just above the missing column, and repeated the procedure for remaining missing cells.

Comparision of Average Temperatures
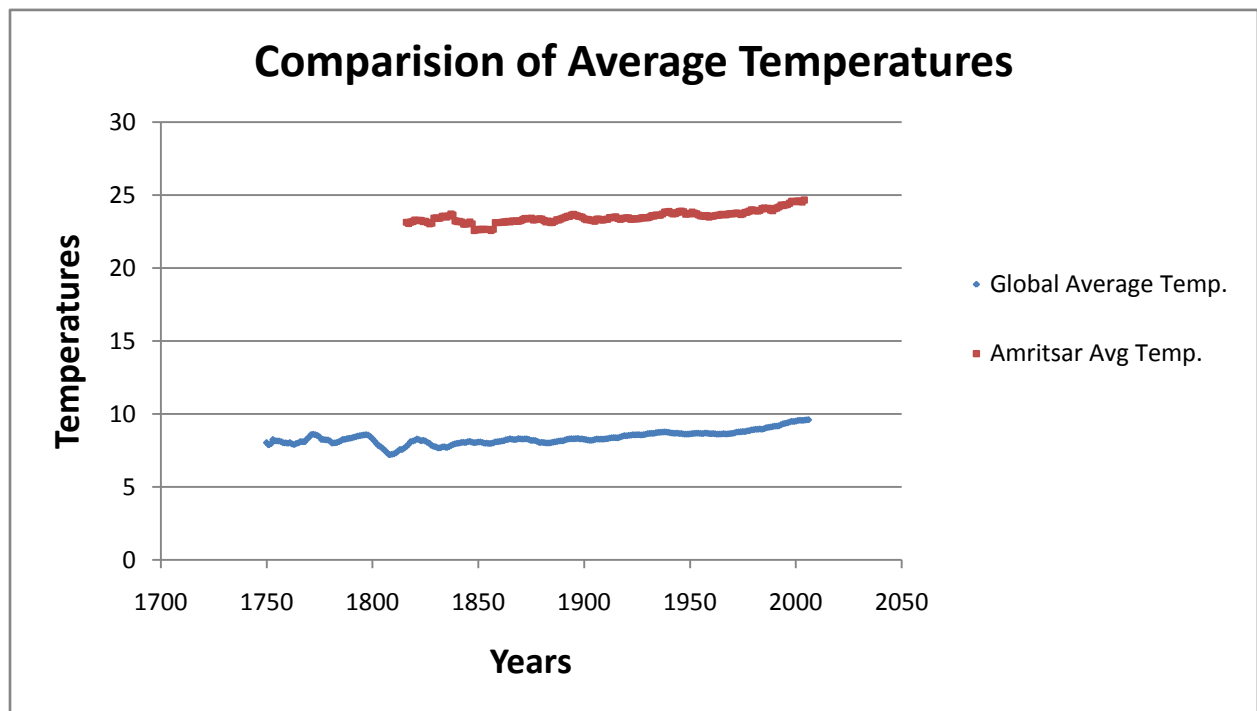
OBSERVATIONS:-

Here are some of the similarities and differences observed between the global and local moving average temperature data:-

SIMILARITIES:-

1. Both local and global moving average temperature shows volatility in chart.
2. In both graphs, there is an increase in average temperature with time, which implies earth is getting hotter with time.

DIFFERENCES:-

1. Global average temperature is observed to be colder than the local average temperature.
2. Local moving average temperature is increasing at slower rate in comparison to global moving average temperature.