Project 1: Explore weather trends

The following data was extracted using SQL:

Local Data:

SELECT city

FROM city_data

WHERE city ='Copenhagen'

Global Data:

SELECT *

FROM global_data

The extracted .CSV files were collected in Excel, where a 10-yearly moving average was calculated and plotted in the figure below. The moving average is calculated using the data from the plotted year and the 9 years before and then averaged.

A line chart was selected as described in the task. Furthermore, this easily highlights the trend of the values.
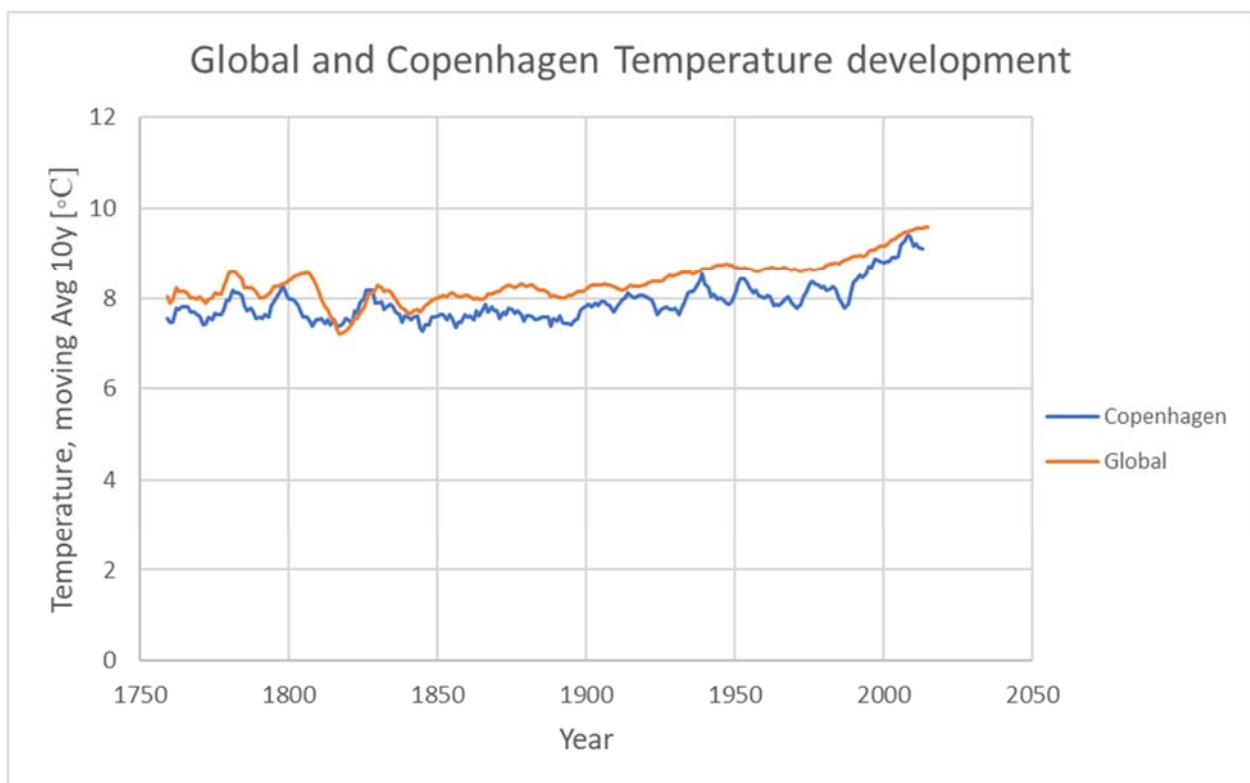
Using a moving average of 10 years, the average yearly temperatures globally and from Copenhagen have been plotted in the figure above.

1. Copenhagen seems to generally have a lower average temperature than the global. Both lines have some fluctuations and the local trend seems to be more extreme.
2. The trend for both the global and local temperature seems to be increasing for the last 50 years.
3. From ~1750 up to 1950, the temperatures were more stable, maybe with a slight increase. From 1950 and onwards the rise in temperature becomes more evident.
4. The temperatures, both locally and globally, have been on a steady increase since ~1980 until recently, where globally it seems to level off a bit and locally a decrease has taken place.
5. Overall the temperatures have increased roughly $1\,^{\circ}C$ since 1980.