Worksheet 1: Mapping Spatial Variations of Climate Change

Task 1: Mapping Spatial Variations

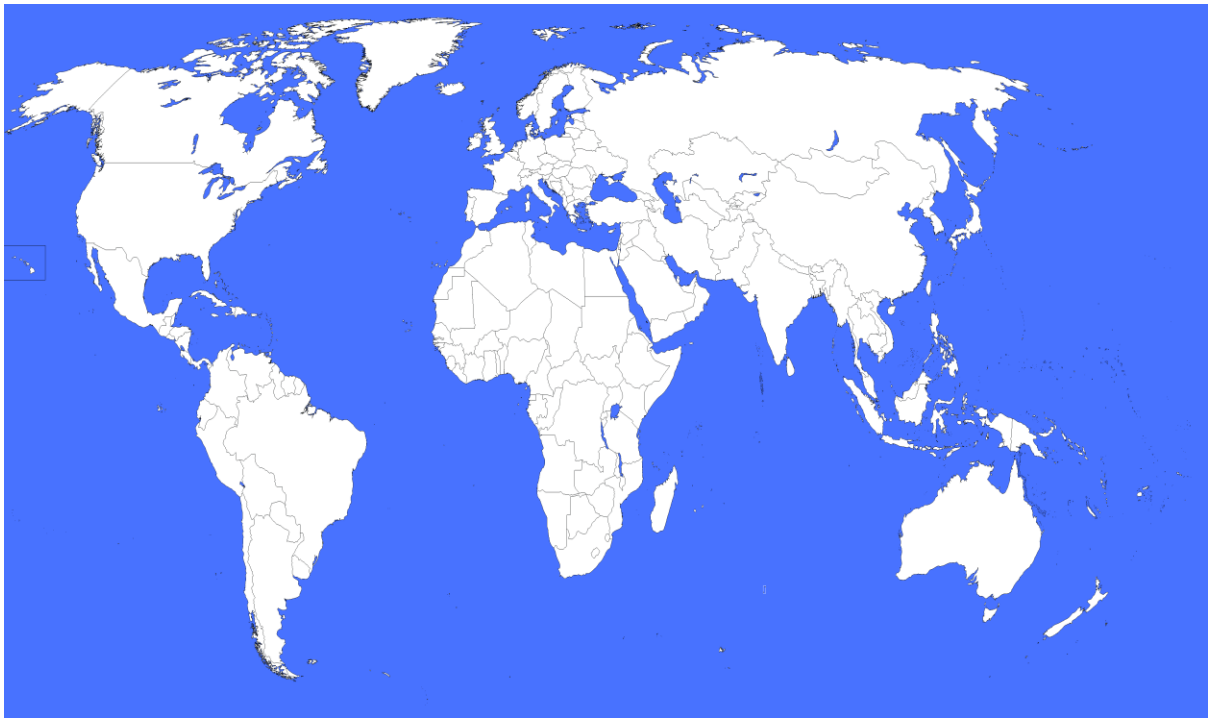
Below is a blank world map. Your task is to identify and **color-code** regions where the number of **hotter days** has increased, particularly in the mid-latitudes.

1. **Red** for areas with a high increase in hot days. **Orange** for moderate increases. **Yellow** for slight increases.
2. **Regions to Highlight** Southern Europe (Spain, Italy, Greece) United States (Southwestern States) Northern China Australia Southern Africa
3. **Annotate Your Map** After coloring, write brief notes next to each highlighted region explaining:

What changes are occurring in the region (e.g., increase in heatwaves, droughts).

Why these changes may be happening (link to climate change, human activities, etc.).

World Map



Task 2 Graphing Temporal Changes in Global Temperatures

1. **Instructions**

Below is a table with **global temperature anomaly** data (from 1880 to 2020). The temperature anomaly represents how much the global temperature deviates from the average temperature between 1951–1980.

Use this data to create a **line graph** that shows how global temperatures have changed over time.

2. **Temperature Anomaly Data (Sample)**

Year	**Temperature Anomaly (°C)**
1880	-0.12
1900	-0.09
1920	0.00
1940	0.12
1960	-0.02
1980	0.15
2000	0.45
2020	1.02

3. Plot **years** on the **x-axis**. Plot **temperature anomalies** on the **y-axis**. Draw a smooth line connecting the points to show the trend.
4. Answer the following questions based on your graph:
    1. In which years did global temperatures begin to rise sharply?
    2. What might explain the rapid increase in global temperatures after 1980?
