Name: Date: Period:

**Climatograms**

Climate Graphs and World Biomes

**Introduction:** Large ecosystems can be described in terms of their climate, or long-term weather patterns. The climate of an ecosystem results from their interactions of several abiotic factors. These factors include radiation energy, temperature, wind, precipitation, humidity and evaporation.

**Background Information:** Climatograms of a large ecosystem show a variation in only two climatic factors, precipitation and temperature. Even though there are other factors that affect climate, a climatogram does give a rough idea of climate in a particular biome.

**Procedure:** A climatogram is a graph that shows the climate of a region. It contains two kinds of data, average monthly precipitation and average monthly temperature. Since there are two types of data, you will be making two separate graphs on the same piece of graph paper. This is called a double Y graph because there are two Y axes.

* The axis on the left is labeled for temperature. Make a line graph showing the temperature data using the left axis.
* The axis on the right is for precipitation. You will make a bar graph showing precipitation using the right Y axis.

Graph all three sets of data on the graph paper provided. Be sure you title each graph and use a ruler for all lines. You also should have two colors per graph – one color for the bar graph and one color for the line graph. Make sure you also include a key to show which color represent precipitation and which represents temperature.

**Middle Latitude Desert: Reno Nevada**

|  |  |  |
| --- | --- | --- |
| **Month** | **Temperature (°C)** | **Precipitation (cm)** |
| January | -1 | 2.5 |
| February | 2 | 3 |
| March | 7 | 1.8 |
| April | 8 | 1 |
| May | 12 | 1 |
| June | 15 | 0.8 |
| July | 20 | 0.5 |
| August | 18 | 0.5 |
| September | 15 | 0.4 |
| October | 10 | 0.6 |
| November | 5 | 1.8 |
| December | 1 | 2.2 |

KEY:

**Deciduous (Temperate) Forest: Greensboro, North Carolina**

|  |  |  |
| --- | --- | --- |
| **Month** | **Temperature (°C)** | **Precipitation (cm)** |
| January | 3.5 | 8.5 |
| February | 4.6 | 8.4 |
| March | 8.9 | 9.5 |
| April | 14.4 | 7.9 |
| May | 19.2 | 9.1 |
| June | 23.4 | 9.6 |
| July | 25.0 | 11.7 |
| August | 24.4 | 10.8 |
| September | 21.1 | 9.3 |
| October | 14.7 | 7.6 |
| November | 9.0 | 6.8 |
| December | 4.4 | 8.4 |

KEY:

**Middle Latitude Grassland: Lawrence, Kansas**

|  |  |  |
| --- | --- | --- |
| **Month** | **Temperature (°C)** | **Precipitation (cm)** |
| January | -1 | 3 |
| February | 2 | 1 |
| March | 6 | 5.5 |
| April | 12 | 8.5 |
| May | 14 | 12.0 |
| June | 18 | 11.8 |
| July | 26 | 8.5 |
| August | 25 | 11.5 |
| September | 21 | 8.2 |
| October | 15 | 5.5 |
| November | 3 | 4.5 |
| December | 1 | 3.5 |

KEY: