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| Climate | Yearlong average of weather patterns over an area |
| Latitude | Increasing this factor, decreases the intensity of solar energy |
| Tropical Zone | Region between the Tropic of Cancer (23.5ºN) and the Tropic of Capricorn (23.5ºS) ----Warm Year Round |
| Polar Zone | Region from 66.5ºN/S of the equator to the poles Very cold temperature year round |
| Temperate Zone | Region between 23.5ºN/S and 66.5ºN/s of the equator Hot Summers Cold Winters |
| Elevation | Increasing this factor leads to colder climates Determines the amount of precipitation it receive |
| Topography | Land features affect amount of precipitation that falls over an area |
| Water Resources | Temperature of this body influences the temperature of the air above |
| Global Winds | Warm air moves to the poles and Cold air moves to the equator |
| Vegetation | Temperature -Influence how much of the sun’s energy is absorbed and how quickly it is released Precipitation - When plants release water vapor from its leaves into the air (transpiration) |

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| Köppen Climate Classification System | Uses mean monthly and annual values of temperature and precipitation |
| Volcanic Eruption | increase the amount of solar radiation that is reflected back into space. Causes Earth’s lower atmosphere to cool |
| Solar Activity | formation of sunspots appear to correspond with warm periods in Europe and North America 11 year cycle |
| CO2 Fluctuations | Changes in plant growth rates, affects water temperatures and weather patterns |
| Climate Change | As a result of increases in Carbon Dioxide (CO2) as well as other greenhouse gases, global temperatures have increased Affects weather and climates |
| Greenhouse Effect | a natural warming of both Earth’s lower atmosphere and surface Makes life on Earth possible |
| Methane Gas | Increases the probability of changing climate patterns |
| Glaciers Melting | Due to increasing temperatures that will lead to less freshwater availability |
| Sea Breezes | blow inland bringing rain and cools the land in the summer. |
| Winter Climate | The coastal climates are warmer, generally wet and mild |