

# TEMPERATURE OVERVIEW



Temperature is the first thing people think about when they think about climate, saying things like “Florida has a great climate.” Florida is also prone to severe storms and hurricanes, another aspect of climate that is often forgotten when talking about climate. But that just shows how important temperature is to weather and climate. It is the battery that powers the weather in a region, and averaging weather for decades, temperature plays a huge role in the climate of a region.

Temperature is one of the main drivers of climate because it affects how much rain or snow an area receives (in addition to other factors). It also controls wind and ocean currents. Warm air (and water) rises, and the space beneath is filled by cooler air (or water). This creates a gradient which causes wind and ocean currents. In turn, these currents carry other aspects of weather across continents and oceans.

Because temperature impacts so many aspects of climate, the impacts are not always readily apparent. Warmer air and water temperature allow for stronger storm events, like hurricanes and tornados. All of these affect different areas of the world differently. Coastal areas have influence from the ocean and the land, while areas deep inland feel effects mostly from land.

Mountains, valleys, lakes, and vegetation all play roles on how an individual region will react to changes in temperature (and other aspects of climate associated with temperature). Because of this, when climate warms or cools on a global scale, the change is not felt the same way in every region. In fact, some areas can cool even if the global trend is one of warming. Even more importantly, because temperature plays such a crucial role in many other aspects of climate, a changing temperature has unpredictable impacts on those other aspects of climate.