

## **The Effects of Climate**

Climate is, as defined by the Merriam Webster dictionary, the prevailing influence or environmental conditions characterizing a group or period. Climate is connected and intertwined in many ways with the four systems; the atmosphere, biosphere, lithosphere, and hydrosphere, and the four topics; meteorology, geology, oceanography, and astronomy of earth science. Each of these eight topics or systems help play a unique role in the trends of a specific region, known as the region's climate.

There are many connections between climate and the eight main topics and systems of earth science. First of all, the atmosphere and meteorology are the day-to-day pattern of which a region's climate is defined. For example the daily temperatures and rainfall of Virginia Beach constructs its long term climate, which is humid and subtropical. Next are oceanography and the hydrosphere, which play a huge role in the climate of the coastal plain region of Virginia. The ocean, which is one border of the coastal plain, is the reason of the region's humidity. The ocean helps control and regulates temperature, which is why it is often warmer in the winter and cooler in the summer.

The wind and the rain natural to Virginia's climate cause erosion. The erosion helps to sculpt many of Virginia's geological features such as caverns, riverbanks, valleys, and hills. The Blue Ridge Mountains of Virginia's lithosphere can also change the course of rain, affecting the climate. Another aspect affecting Virginia's climate is the great variety of wildlife in Virginia's Biosphere. The many plants and animals regulate the oxygen level by using and producing it. The climate also affects what animals or plants can grow based on temperature and precipitation. Finally astronomy affects our climate greatly due to the sun. The sun is the main variable affecting a region's daylight hours and temperature.

The four topics and systems of earth science are always changing and being changed on the basis of our climate.