**Terms and concepts to learn**

|  |  |
| --- | --- |
| **Terms** | **Definitions** |
| http://b.quizlet.com/a/i/spacer.Thhr.gifWeather is | http://b.quizlet.com/a/i/spacer.Thhr.gifThe short-term atmospheric conditions that we see at any one moment. |
| http://b.quizlet.com/a/i/spacer.Thhr.gifClimate is | http://b.quizlet.com/a/i/spacer.Thhr.gifThe average conditions found in the atmosphere over a long period of time |
| http://b.quizlet.com/a/i/spacer.Thhr.gifClimate is related to | http://b.quizlet.com/a/i/spacer.Thhr.gifthe convection regions at various latitudes,  temperature differences between the equator and the poles, and  warm and cold surface ocean currents. |
| http://b.quizlet.com/a/i/spacer.Thhr.gifWhy climate zones occur | http://b.quizlet.com/a/i/spacer.Thhr.gifhttp://o.quizlet.com/MRxUd8c8bbbp0LId9dBGMA_m.png Because of the unequal heating of Earth by the Sun. |
| http://b.quizlet.com/a/i/spacer.Thhr.gifTemperatures in the temperate zone are affected most by | http://b.quizlet.com/a/i/spacer.Thhr.gifthe changing seasons. |
| http://b.quizlet.com/a/i/spacer.Thhr.gifThe driving energy source for heating of Earth and circulation in Earth's atmosphere comes from | http://b.quizlet.com/a/i/spacer.Thhr.gifthe Sun and is known as solar energy. |
| http://b.quizlet.com/a/i/spacer.Thhr.gifConvection Currents | http://b.quizlet.com/a/i/spacer.Thhr.gifhttp://o.quizlet.com/Bf-iQsUOhj2H.C47r1QyVQ_m.jpg A cycle of warm air rising and cool air sinking causing a circular movement of air. Set in motion by the Sun heating Earth's surface unevenly. |
| http://b.quizlet.com/a/i/spacer.Thhr.gifWind | http://b.quizlet.com/a/i/spacer.Thhr.gifhttp://o.quizlet.com/E1ews1R9Yj8COY8xRBTlUQ_m.png Air moving from high pressure areas of cool dense air to low pressure areas of warm less dense air. |
| http://b.quizlet.com/a/i/spacer.Thhr.gifGlobal Winds are caused by | http://b.quizlet.com/a/i/spacer.Thhr.gifhttp://o.quizlet.com/3k5UkWqcSs4dicl6Anu5.w_m.png Uneven heating of Earth's surface by the Sun causes heat transfer by convection on a global scale in the atmosphere. |
| http://b.quizlet.com/a/i/spacer.Thhr.gifCoriolis Effect | http://b.quizlet.com/a/i/spacer.Thhr.gifhttp://o.quizlet.com/iETO8QaOE2GYcKX8S3pIOQ_m.png Global winds appear to curve because convection cells are in place in the atmosphere and Earth is spinning on its axis. |
| http://b.quizlet.com/a/i/spacer.Thhr.gifTrade Winds | http://b.quizlet.com/a/i/spacer.Thhr.gifhttp://o.quizlet.com/TcvS6cGZ0XjrR-k3ICsbAQ_m.jpg Blow from east to west in the tropical region - move warm tropical air in that climate zone. |
| http://b.quizlet.com/a/i/spacer.Thhr.gifPrevailing Westerlies | http://b.quizlet.com/a/i/spacer.Thhr.gifhttp://o.quizlet.com/ixK-XGEH.jC4xirfSDBl5Q_m.png Blow from west to east in the temperate region. |
| http://b.quizlet.com/a/i/spacer.Thhr.gifPolar Easterlies | http://b.quizlet.com/a/i/spacer.Thhr.gifhttp://o.quizlet.com/AHxjGrG0OKERT1bns4HVTQ_m.png Blow northeast to west in the polar region moving cold polar air in that climate zone from the poles toward the west. |
| http://b.quizlet.com/a/i/spacer.Thhr.gifJet Stream | http://b.quizlet.com/a/i/spacer.Thhr.gifhttp://o.quizlet.com/fFivRaonOPujzMSs.VGAgg_m.jpg Near the top of the Troposphere, a fast-moving ribbon of air moves from west to east in the Northern Hemisphere around Earth. Air masses and weather systems in its path are moved along by the fast moving air. |
| http://b.quizlet.com/a/i/spacer.Thhr.gifWeather systems in New Zealand move from | http://b.quizlet.com/a/i/spacer.Thhr.gifwest to east because of the Jet Stream and the Prevailing Westerlies wind belt. |
| http://b.quizlet.com/a/i/spacer.Thhr.gifTropical Weather Systems, like hurricanes, move | http://b.quizlet.com/a/i/spacer.Thhr.gifin the direction of the trade winds, from east to west.  If they enter the prevailing westerly wind belt, they are often turned, and move from west to east. |
| http://b.quizlet.com/a/i/spacer.Thhr.gifDoldrums | http://b.quizlet.com/a/i/spacer.Thhr.gifArea near the equator with very little wind. |
| http://b.quizlet.com/a/i/spacer.Thhr.gifLocal winds | http://b.quizlet.com/a/i/spacer.Thhr.gifOn a smaller scale, convection currents near large bodies of water can cause land and sea breezes. |
| http://b.quizlet.com/a/i/spacer.Thhr.gifSea breeze | http://b.quizlet.com/a/i/spacer.Thhr.gifhttp://o.quizlet.com/OwT-f6GQWXbHKx8k1rrY7w_m.jpg Land is warmer and air rises, sea is cooler and air sinks. Cool air blows onto land from the water. |
| http://b.quizlet.com/a/i/spacer.Thhr.gifLand breeze | http://b.quizlet.com/a/i/spacer.Thhr.gifhttp://o.quizlet.com/hCYn4G2jHN8n6YWn59GXCA_m.jpg Land is cooler and air sinks, sea is warmer and air rises. Cool air blows from land toward water. |
| http://b.quizlet.com/a/i/spacer.Thhr.gifSurface currents of Earth's oceans | http://b.quizlet.com/a/i/spacer.Thhr.gifhttp://o.quizlet.com/h9eX.D0DPyMXIb.VsrCWyw_m.jpg Circulate warm and cold ocean waters in  convection patterns. Influence the weather and climates  of the land masses nearby. |
| http://b.quizlet.com/a/i/spacer.Thhr.gifSurface ocean currents are caused by | http://b.quizlet.com/a/i/spacer.Thhr.gifDifferences in temperature,  Differences in salinity,  and by wind. |
| http://b.quizlet.com/a/i/spacer.Thhr.gifWarm Gulf Stream current water | http://b.quizlet.com/a/i/spacer.Thhr.gifhttp://o.quizlet.com/E5YfiEHTUmivQLUCxDdP6A_m.png Influences the weather and climate of the eastern Atlantic shoreline of the United States and Britain. |
| http://b.quizlet.com/a/i/spacer.Thhr.gifCold California current | http://b.quizlet.com/a/i/spacer.Thhr.gifhttp://o.quizlet.com/E5YfiEHTUmivQLUCxDdP6A_m.png Influences the weather and climate of the western Pacific shoreline of the United States. |
| http://b.quizlet.com/a/i/spacer.Thhr.gifRadiation | http://b.quizlet.com/a/i/spacer.Thhr.gifTransfer of energy by electromagnetic waves. Sunlight and heat energy are examples. |
| http://b.quizlet.com/a/i/spacer.Thhr.gifSome of the Sun's energy coming through Earth's atmosphere is | http://b.quizlet.com/a/i/spacer.Thhr.gifhttp://o.quizlet.com/JTJacw9t.1dxYbgtZzpScA_m.jpg reflected or absorbed by gases and/or clouds in the atmosphere. |
| http://b.quizlet.com/a/i/spacer.Thhr.gifAbsorption is | http://b.quizlet.com/a/i/spacer.Thhr.gifwhen energy is taken in by an object. Gases in the atmosphere can absorb solar energy. |
| http://b.quizlet.com/a/i/spacer.Thhr.gifReflection is | http://b.quizlet.com/a/i/spacer.Thhr.gifwhen energy bounces off a surface. Clouds tend to reflect sunlight back out into space. Since clouds reflect the energy, they don't get warmed by it. |
| http://b.quizlet.com/a/i/spacer.Thhr.gifLand heats up and cools down | http://b.quizlet.com/a/i/spacer.Thhr.giffairly quickly. |
| http://b.quizlet.com/a/i/spacer.Thhr.gifWater heats up and cools down | http://b.quizlet.com/a/i/spacer.Thhr.giffairly slowly. |
| http://b.quizlet.com/a/i/spacer.Thhr.gifProcess known as the Greenhouse Effect. | http://b.quizlet.com/a/i/spacer.Thhr.gifhttp://o.quizlet.com/bvczC6rt0s2Z49P1P-rceA_m.jpg Solar energy that is absorbed by Earth's land and water surfaces is changed to heat that moves - radiates back into the Troposphere where the heat is absorbed or trapped by gases. |
| http://b.quizlet.com/a/i/spacer.Thhr.gifGases in the Troposphere that absorbs heat energy radiating off Earth's surface. | http://b.quizlet.com/a/i/spacer.Thhr.gifhttp://o.quizlet.com/U6CYkgFxX.jP8IVmkXCX1g_m.jpg Carbon Dioxide and Methane |
| http://b.quizlet.com/a/i/spacer.Thhr.gifGas is the Stratosphere that absorbs ultraviolet radiation. | http://b.quizlet.com/a/i/spacer.Thhr.gifOzone |
| http://b.quizlet.com/a/i/spacer.Thhr.gifThe water on Earth | http://b.quizlet.com/a/i/spacer.Thhr.gifhelps to regulate the temperature range of Earth's atmosphere. |