Characteristics of an Air Mass

Some regions of Earth’s surface, such as those shown in the map above, produce air masses again and again. The characteristics of an air mass depend on the region where it forms. A hot desert produces dry, hot air masses, while cool ocean waters produce moist, cool air masses. Scientists classify air masses into categories according to the characteristics of regions. Each category name is made of two words—one for moisture, one for temperature.

The first word of an air mass’s category name tells whether the air mass formed over water or dry land. It describes the moisture of the air mass.

- **Continental** air masses form over land. Air becomes dry as it loses its moisture to the dry land below it.
- **Maritime** (MAR-ih-TYM) air masses form over water. Air becomes moist as it gains water vapor from the water below it.

The second word of a category name tells whether an air mass formed close to the equator. It describes the air mass’s temperature.

- **Tropical** air masses form near the equator. Air becomes warm as it gains energy from the warm land or water.
- **Polar** air masses form far from the equator. Air becomes cool as it loses energy to the cold land or water.

The word *maritime* has the same root as the word *marine*. Both come from the Latin word *mare*, which means “sea.”