***Air Masses Guided Notes***

Weather changes as air masses move.

* \_\_\_\_\_\_\_\_\_\_\_\_- large volume of air where temperature and humidity are the \_\_\_\_\_\_\_\_\_ at different altitudes.
  + Air masses can cover thousands of square miles
* Air masses form when air sits over a region of Earth for many days.
  + The sitting air takes on the characteristics of the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. This means:
    - When the Earth’s surface gets cold, the air does too.
    - When the Earth’s surface is wet, the air becomes moist.

Characteristics of air masses:

* Air masses are categorized by the characteristics of the region where it formed.
* The two categories are made of two words.
  + The first word describes the \_\_\_\_\_\_\_\_\_\_\_\_\_ of the air mass.
  + The second word describes the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Two word category names:

1. First word tells whether mass was formed over dry land or water (\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_)

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ air mass- forms over land and loses its moisture to the land below it, becoming dry.
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ air mass- forms over water and become moist as it gains water vapor from the water below it.

1. Second word tells whether an air mass is formed close to the equator (\_\_\_\_\_\_\_\_\_\_\_\_\_\_)

* \_\_\_\_\_\_\_\_\_\_\_\_ air mass- forms near the equator and becomes warm by gaining energy from the warm land and water below it.
* \_\_\_\_\_\_\_\_\_\_\_\_ air mass- forms far from the equator and becomes cool as it loses energy to the cold land and water below it.

Air Masses

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ content is noted by the first letter.

m – \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ – wet

c – \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ – dry

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is noted by the second letter.

P – \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ – cool

T – \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - warm

**Description of Air Masses**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (cP)- cold and dry-forms over land, High Pressure

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (cT)- warm (hot) and dry- forms over land (Low Pressure)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (mP)- Cold and Humid (wet); Forms over cold water (High Pressure)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (mT)- Warm and humid(wet); Forms over warm water (Low Pressure)

Movement of an air mass:

* Air masses travel away from the regions they were formed.
* They move with the global wind patterns.
* As air masses move, they take with them their characteristics.
* As they travel over a surface with different characteristics, the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ changes the air mass.
* This change can take days or weeks. If the air mass is moving fast enough, it can travel with its characteristics a great distance.

Weather changes where air masses meet:

* A \_\_\_\_\_\_\_\_\_\_\_\_ is a boundary between air masses.
* The weather near a front can differ from the weather inside the air mass.
* As one air mass pushes another, some of the air at the boundary will be pushed \_\_\_\_\_\_\_\_\_\_\_\_\_\_. This creates clouds and can lead to cloudy and stormy weather as a front passes.
* After the front passes you experience the characteristics (temperature and humidity) of the air mass.