

**Earth Science  
Lab**

**Name:  
Block:**

**Air Masses:**

Large portions of the atmosphere will develop similar traits of temperature and moisture depending upon where in the world they formed. In general, air masses from the north contain cold air while those from the south contain warm air. Also, air masses from the oceans contain higher moisture than those from the land. While this all may seem like common sense, these traits have a huge impact on our weather.

**Vocabulary: Define and know these terms!**

Air mass:

Source region:

Humid:

Arid:

Jet Stream:

**Part A: Complete the data table below:**

<u>Name:</u>	<u>Symbol used:</u>	<u>Source region:</u>	<u>description of the air</u>
Arctic	A	North/South pole	Frigid! Very cold air
Polar			
Tropical			
Maritime			
Continental			

**Part B: Putting them together!**

Use your information from Part A to describe the air associated with each air mass:

<u>Air Mass:</u>	<u>Name:</u>	<u>Description:</u>
cA		
cP		
cT		
mP		
mT		

**Part C: Go to the map!**

Locate the source regions for the various air masses on this map of North America. Lightly color the cold air masses blue and warm in red.

NOTE: Also draw the Jet Stream!!



**Discussion Questions: Answer in complete sentences!**

1. Which air mass dominates our winter weather here in CNY? Explain.
2. What is the most likely source region for the Maritime Tropical air that dominates our summer weather in New York State?
3. Would Maritime Tropical air still dominate your summer weather if you moved to Arizona? Explain your response.
4. Maritime Polar air masses change to Continental Polar as they cross the Rocky Mountains. Why does the air dry out?
5. What type of front would you expect if a Polar air mass was moving into town? Explain.

**Conclusion:** In a short paragraph (4-5 sentences), describe the effects global warming might have on air masses, their formation and the impact on our daily weather.