When Air Masses Meet Investigat

You will be answering: What happens when similar and different air masses meet. **Remember:** Air Masses are determined by ______&____.

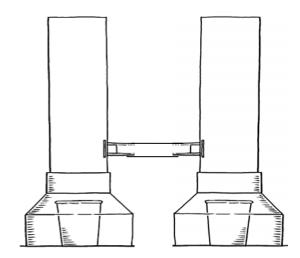
Using the convection tube set-up below, **create** three investigation trials that will demonstrate the movement of air masses. Observe and determine what will happen when; two wet/cold masses meet,a wet/hot and dry/hot meet, a wet/cold and dry/hot meet . Record your set-up below.

Materials:

 Convection current tube set Piece of tubing A cup of hot water
candle
cups with ice
A Flashlight
punk stick (incense stick)

List: What data will you observe?

• _____

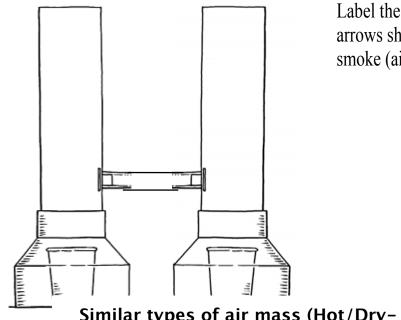


Data Table: Air Mass set up Similar types of air masses:

Air Mass Qualities Wet/Cold & Wet/ Cold	Air Mass Names	When smoke is entered into convection tubes with different When smoke is entered into convection tubes with different When Smoke (air) moves:	
Wet/Hot & Dry/ Hot		Label the showing	
Wet/Cold & Dry/Hot			

Investigating When Air Masses Meet Data Sheet

Trial 1: Maritime Polar & Maritime Polar Air Masses Meet

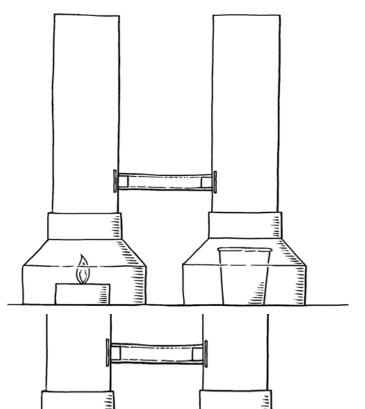


Label the convection tubes and draw arrows showing the direction the smoke (air) moved.

Similar types of air mass (Hot/Dry- Hot/Wet)

When smoke is entered into convection tubes with Similar types of air masses (Hot/Dry-Hot/Wet), the smoke (air) moves:_

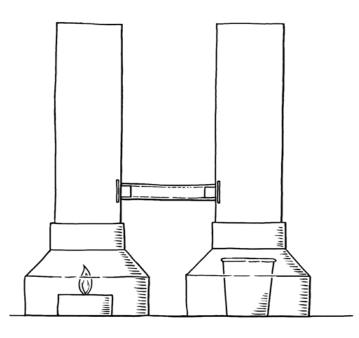
- - - ----Similar types of air mass (Hot/Drv- Hot/wet)



Label the convection tubes and draw arrows showing the direction the smoke (air) moved.

Similar types of air mass (Hot/Dry- Hot/Wet)

When smoke is entered into convection tubes with <u>Similar</u> types of air masses (Hot/Dry-Hot/Wet), the smoke (air) moves:______



Label the convection tubes and draw arrows showing the direction the smoke (air) moved.

Analysis Questions

1.Explain what happened when testing the two wet/cold air masses.

2. Explain which trial set up showed the greatest air movement. Why did it happen?

3. In the lab, you recreated the following air masses; maritime polar, maritime tropical, and continental tropical. If you were to do this lab again how could you recreate a continental polar air mass?

4. Tornado Alley is a region in the United States where more tornadoes occur than anywhere else in the world. Air from Canada mixes with air from the Gulf of Mexico to create this severe weather. Using what you learned in this lab, describe the qualities of the two mixing air masses and why they would create such severe weather.