

MOVING AIR-Creating a model of a warm front

★ An air mass is a large body of air with about the same temperature and humidity (water vapor) in it. Air masses form when air stays in one area long enough to take on the properties of that area and takes about a week or more to form.

★ The density (thickness) of air masses varies with the temperature and amount of water vapor (humidity) in the air. Warm air masses are less dense (lighter) than cold air masses. Humid air masses are less dense than dry air masses. When air masses with different densities meet, the two masses do not mix.

PROCEDURE

1.) Write a hypothesis based on this question on your output page "What happens when air masses collide?"

2.) Create a model of a warm front when air masses meet using the following:

1 measuring cup	water	blue food coloring
one clear container	liquid cooking oil	spoon

1. Fill the clear container with $\frac{1}{4}$ cup of water
2. Add 3 drops of blue food coloring
3. Measure $\frac{1}{4}$ cup of oil
4. Carefully tilt and SLOWLY pour the oil into the container
5. Observe the movement of the oil into the bottle

AFTER performing the procedure...

Directions-Record responses in the chart on the left side- output page.

1.) Describe your first reaction when the liquids met.

2.) Draw your observation. Label the liquids and contents.

3.) What did you notice happened when the two liquids met?

★ Use one of the sentence starters to help you express their observations clearly.

"During, the investigation, I noticed... when the two liquids met" or

"When the liquids mixed together _____."