



AIR MASSES AND FRONTS

4 MAJOR AIR MASSES THAT AFFECT THE US

❖ Maritime Tropical- Formed over warm ocean water=

- _____WET_____ and _____WARM_____ air

❖ Maritime Polar- Formed over cold ocean water=

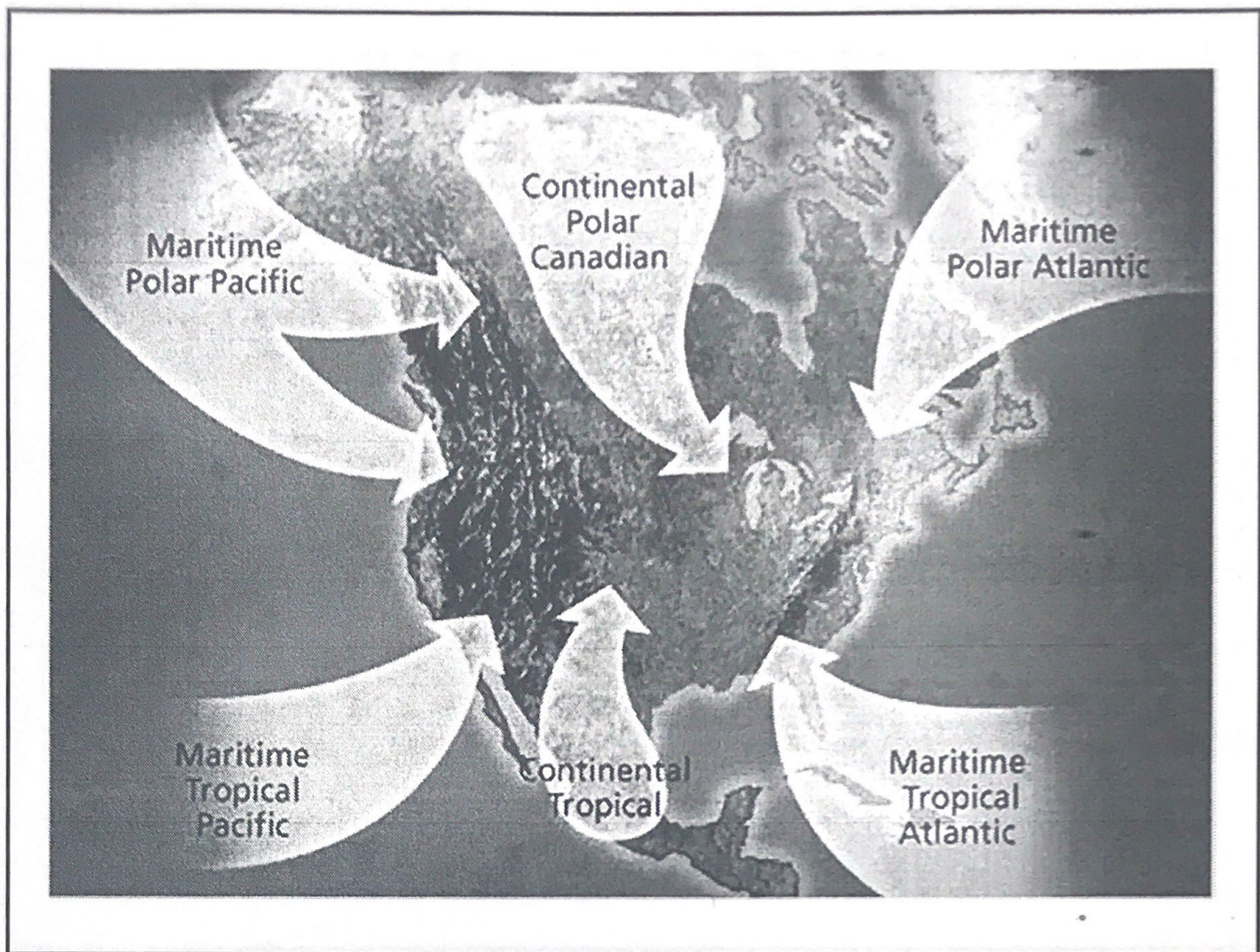
- _____WET_____ and _____COLD_____ air

❖ Continental tropical- Formed over warm land=

- _____DRY_____ and _____WARM_____ air

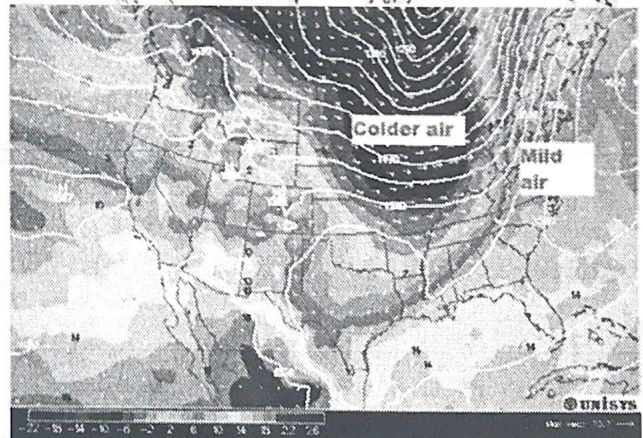
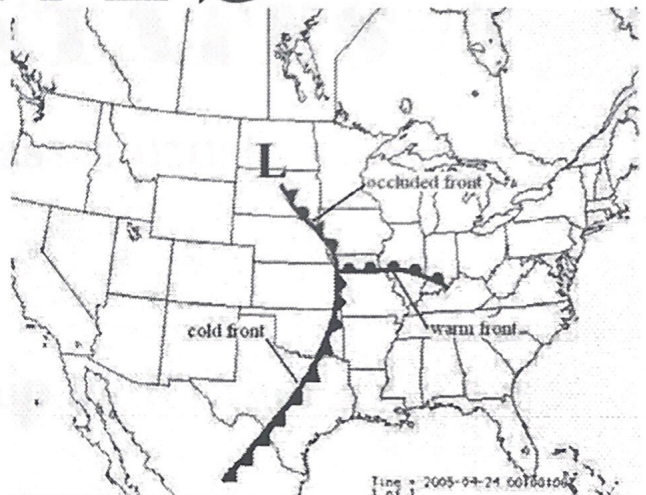
❖ Continental Polar- Formed over cold land=

- _____DRY_____ and _____COLD_____ air



FRONTS

When two air masses that have different properties meet, they do not easily mix. A boundary called a front forms between the two air masses.



FRONTS

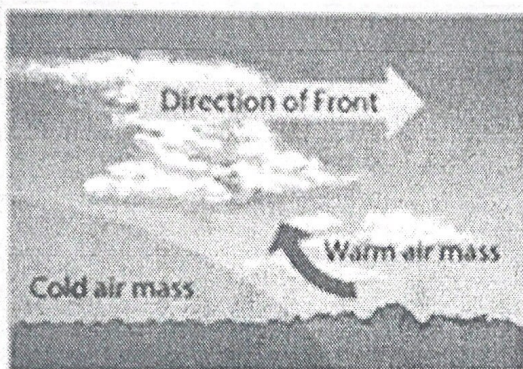
A front is the boundary between two air masses of different densities.

- Cold air = more dense
- Warm air = less dense
- Remember: Warm air rises because it is less dense, while cold air sinks causing a convection current

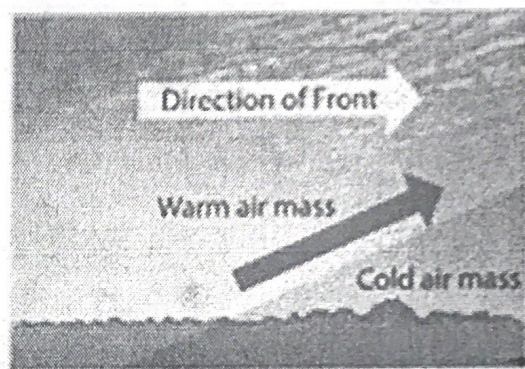
FRONTS IN THE UNITED STATES

- ❖ In the United States, air masses usually travel from west to east
- ❖ As they move, they meet up with other air masses
- ❖ Individual air masses do not usually mix
- ❖ Instead, a front forms between them
- ❖ Fronts bring changes in the weather.

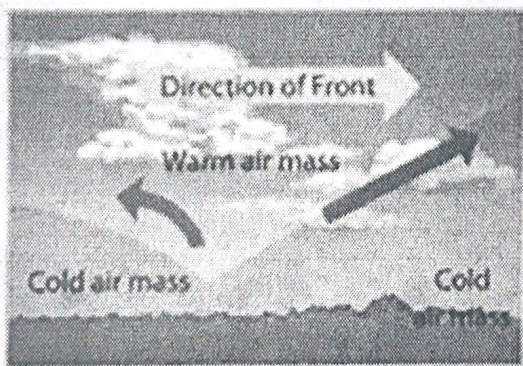
4 TYPES OF FRONTS



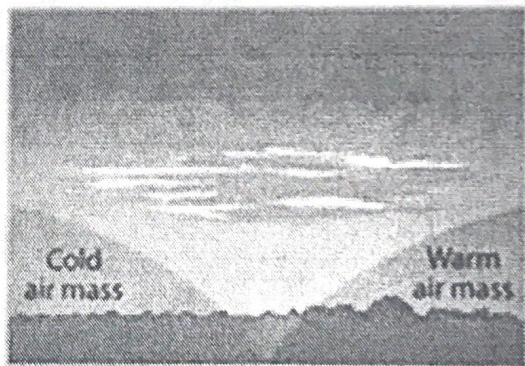
Cold front



Warm front

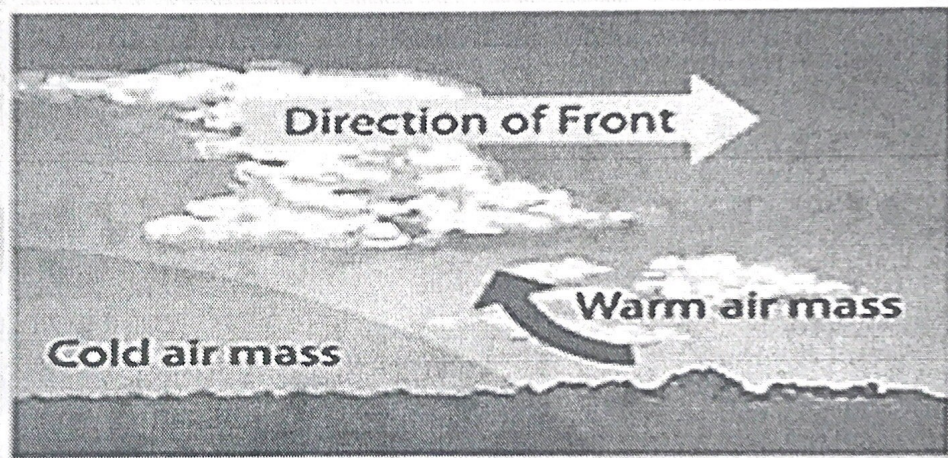


Occluded front



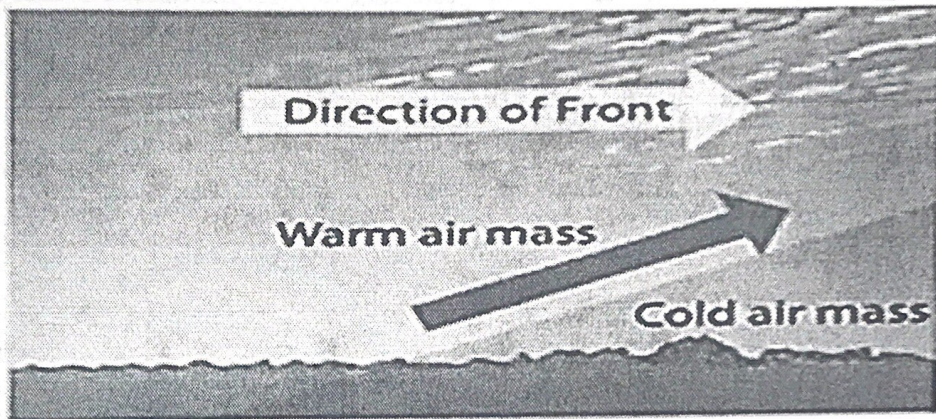
Stationary front


COLD FRONT



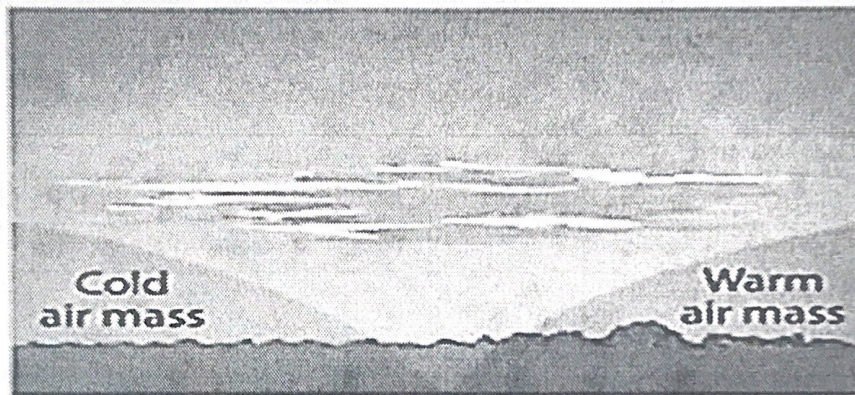
Symbol	How does it form	Weather	Draw it
	<p>A cold air mass pushes its way underneath a warm air mass.</p>	<p>Can form tall <u>cumulonimbus</u> clouds and <u>precipitation</u>. Brief, heavy <u>storms</u> are likely.</p>	


WARM FRONT



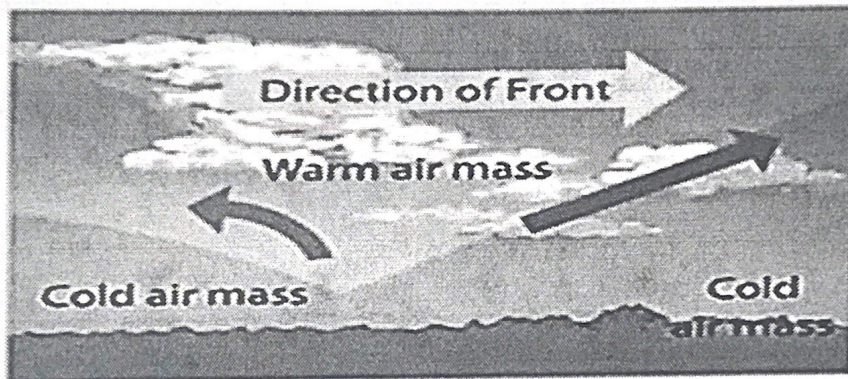
Symbol	How does it form	Weather	Draw it
 <p><i>red</i></p>	<ul style="list-style-type: none"> *A warm air mass pushes over a cooler air mass. *The warm air slowly moves up and over the cold air *As the warm air rises, it <u>cools</u>. 	<ul style="list-style-type: none"> *Produces cloud covered skies. *Often brings many <u>hours</u> of steady rain or snow. 	


STATIONARY FRONT



Symbol	How does it form	Weather	Draw it
	*Sometimes cold and warm air masses <u>do not move</u> for a while.	* Clouds may cover the sky for <u>days</u> .	

OCCLUDED FRONT



Symbol	How does it form	Weather	Draw it
 <p><i>purple</i></p>	<p>*A <u>cold</u> air mass moves so rapidly it moves under a warm air mass.</p> <p>* The <u>two</u> cold air masses collide pushing the warm front upward.</p>	<p>*It will rain on <u>both</u> sides of the front.</p>	