Air Masses and Fronts - Notes from PowerPoint

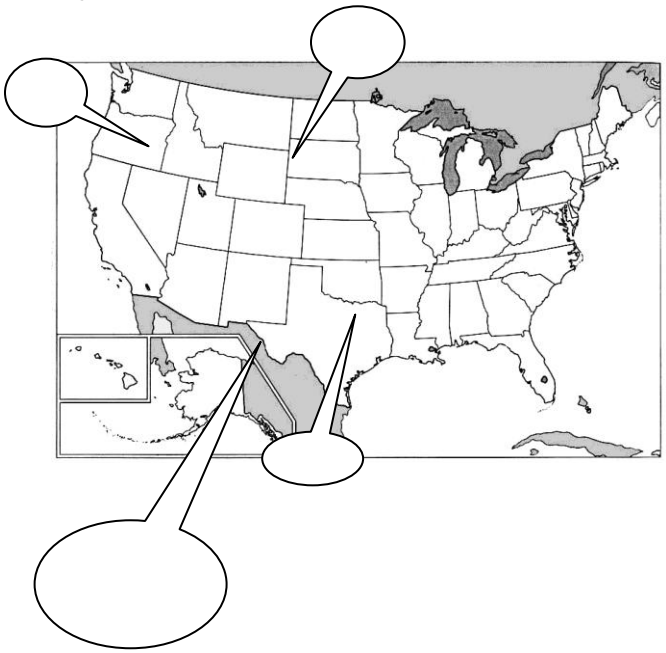
1. _____ _____- a large body of air with similar temperature, _____, and air pressure.

2. whether an air mass is warm or cold depends on the _____ over which the mass forms.

- **4 types of air masses**

1. _____ - warm air masses that form over the tropics.
2. _____ - cold air masses that form over the poles.
3. _____ - air masses that form over the ocean (very humid)
4. _____ - form over land - (are dry)

Identify the air masses below.



Continental means: _____

Maritime means: _____

3. Where air masses meet but do not mix due to different temperatures and densities becomes a _____.

4 Kinds of fronts:

1. _____ Front - a cold air mass is replacing a warmer air mass.
   a) Shown on a weather map by a blue line with _____ pointing the direction the cool air is moving.
   b) Rapidly moving _____ mass runs into a slowly moving warm air mass.
   c) The denser cold air slides under the lighter _____ pushing it _____.
   d) The rising air cools and condenses, forming _____.
   e) Heavy _____ or _____ may fall.
   f) If the warm air mass contains only a little _____, there may be only cloudy skies.
   g) Cold fronts move quickly and can cause abrupt weather changes including violent _____.
   h) After a cold front passes through, _____, _____ air moves in.
   i) Clear skies and cooler _____ often follow.

Draw the symbol for a Cold Front here:

2. _____ Front - _____ air mass collides with a slowly moving cooler air mass.

a) Shown on a weather map by a red line with _____ _____ pointing the direction the warm air is moving.

b) The warm air moves over the denser _____ _____

c) If the warm air is _____ showers and light rain fall along the front where the warm and cold air meet.

d) If the warm air is dry, scattered _____ form

e) Because warm fronts move more slowly than cold fronts, the weather may be _____ or _____ for several days.

f) After the warm front _____, the weather is likely to be warm and humid.

g) In winter, warm fronts may bring _____

Draw the symbol for a Warm Front here:

Weather found with a Warm Front:

Warm Fronts move _____ than Cold Fronts.

3. _____- When a warm front is trapped by 2 _____ _____.

a) Shown on a weather map by a purple line with alternating _____ and _____ pointing the direction the front is moving.

b) The denser cool air masses move _____ the less dense warm air and push it upward.

c) The temperature near the ground becomes _____.

d) The warm air mass is cut off, or _____, from the ground.

e) As the warm air cools and its water vapor condenses, the weather may turn cloudy and _____ or snowy.

Draw the symbol for an Occluded Front here:

What happens to the warm air in this type of front?

What did we compare an Occluded front to?

The temperature on the ground may become:

4. _____ - A front that stops moving or is moving very _____.

a) Shown on a weather map with alternating _____ semicircles pointing away from the warm air and _____triangles pointing away from the cold air.

b) Sometimes cold and warm air masses meet, but neither has enough force to _____ the other.

c) They meet in a "_____"

d) Where the warm and cool air meet, water vapor in the air _____ into rain, snow, fog, or clouds.

e) It may stall over an area and bring many days of clouds and _____.

Stationary means: _____

What happens during a stationary front?

What did we compare a stationary front to?

Draw the symbol for a stationary front here: