Name: _____

Date: _____ Period: _____

Lab Activity: Air Masses and Fronts

INTRODUCTION:

An air mass is characterized by the weather variables that it takes from a source region. When unlike air masses collide a front is established and based on the type of air mass different weather patterns will be created.

Meteorologist follow and track air masses very carefully. As air masses move across our country meteorologist look to see where different air masses will collide. From that they can better predict a locations weather.

OBJECTIVE:

To see where air masses originate as well as how different air masses act when they collide.

VOCABULARY:

Air Mass -

Cold Front -

Warm Front -

Stationary Front -

Occluded Front -

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PROCEDURE:

1. On the "Cut Out Page", color the cold air masses light blue, the warm air masses red and the colder air mass dark blue.
2. On the "Cut Out Page", cut out the air mass pieces and construct a profile of how the unlike air masses appear. Glue or tape down the piece once you are sure of frontal boundary profile.
3. In the "Symbol" box fill in the appropriate air mass symbol.
4. In the "What Happens" box give a brief description of the interaction at that frontal zone.

COLD FRONT

Frontal Boundary Profile:

Symbol:

What Happens:

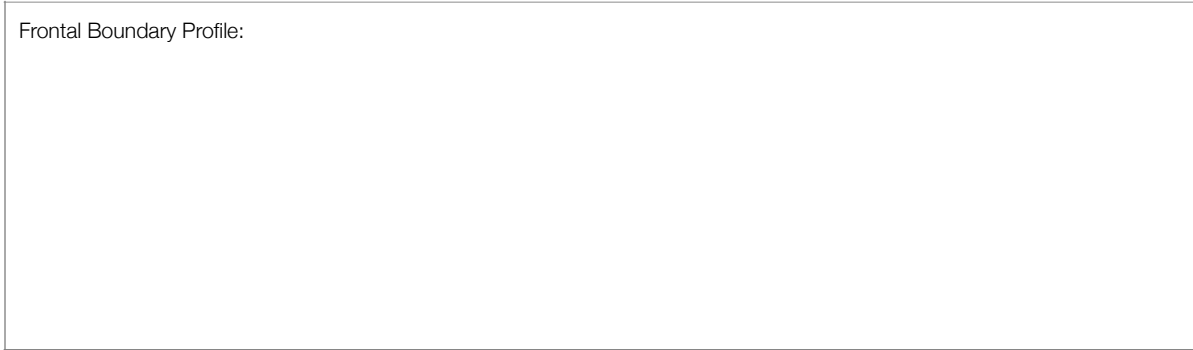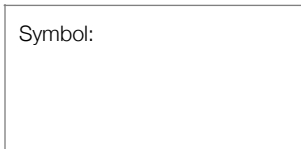## WARM FRONT

Frontal Boundary Profile:

Symbol:

What Happens:

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STATIONARY FRONT
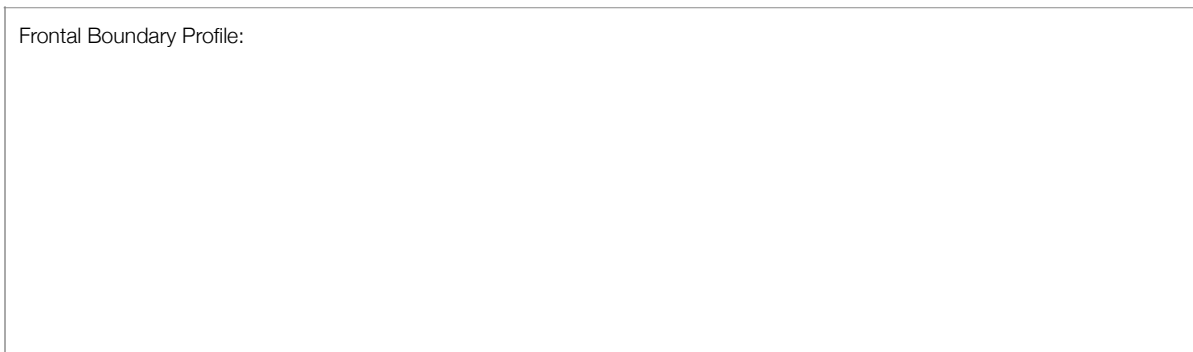
Frontal Boundary Profile:
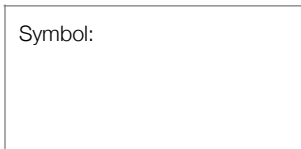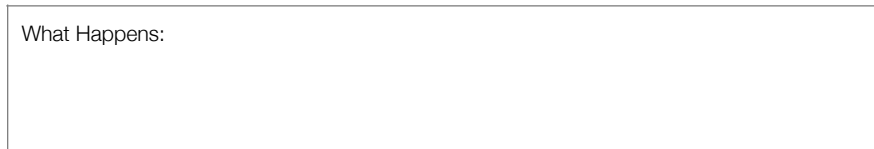
Symbol:

What Happens:

OCCLUDED FRONT

Frontal Boundary Profile:

Symbol:

What Happens:

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DISCUSSION QUESTIONS:

1. How do frontal boundary symbols show the direction of movement?

2. With respect to a cold front, where does precipitation occur?

3. With respect to a warm front, where does precipitation occur?

4. How does density play a part in determining how unlike air masses react?

5. What type of weather front experiences a decrease in temperature?

CONCLUSION: Compare the temperature and moisture conditions on either side of the cold front.

Lab Activity: Air Masses and Fronts

CUT OUT PAGE

Cold Air

Cold Air

Warm Air

Colder Air →

Warm Air

Cold Air →

Warm Air ↖

Warm Air →

Receding Cold Air