**Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Period\_\_\_**

**Forecasting the Weather WebQuest**

**Introduction:** How do meteorologists forecast the weather? In this web quest we will explore air masses, fronts, weather stations, and weather forecasts.

**Procedure:** Follow the links for each question and write down your responses.

1. What is an air mass? [http://ww2010.atmos.uiuc.edu/(Gh)/guides/mtr/af/arms/home.rxml](http://ww2010.atmos.uiuc.edu/%28Gh%29/guides/mtr/af/arms/home.rxml)

2. Describe the temperature, moisture and air pressure associated with a Continental Polar air mass.

[http://ww2010.atmos.uiuc.edu/(Gh)/guides/mtr/af/arms/artc.rxml](http://ww2010.atmos.uiuc.edu/%28Gh%29/guides/mtr/af/arms/artc.rxml)

Temperature:

Moisture:

Air Pressure:

3. Describe the temperature, moisture and air pressure associated with a Maritime Tropical air mass.

[http://ww2010.atmos.uiuc.edu/(Gh)/guides/mtr/af/arms/trp.rxml](http://ww2010.atmos.uiuc.edu/%28Gh%29/guides/mtr/af/arms/trp.rxml)

Temperature:

Moisture:

Air Pressure:

4. Describe how the pressure changes as you move away from a high pressure center. What is the color and the symbol that is used to represent this?

[http://ww2010.atmos.uiuc.edu/(Gh)/wwhlpr/anticyclone.rxml?hret=/guides/mtr/af/arms/artc.rxml](http://ww2010.atmos.uiuc.edu/%28Gh%29/wwhlpr/anticyclone.rxml?hret=/guides/mtr/af/arms/artc.rxml)

Description:

Symbol, including color:

5. What is a cyclone? What direction do winds flow in cyclones in the Northern Hemisphere? [http://ww2010.atmos.uiuc.edu/(Gh)/wwhlpr/cyclone.rxml?hret=/guides/mtr/af/arms/artc.rxml](http://ww2010.atmos.uiuc.edu/%28Gh%29/wwhlpr/cyclone.rxml?hret=/guides/mtr/af/arms/artc.rxml)

Definition:

Direction of wind flow:

6. **Watch** this animation on how winds flow around low pressure (L) and high pressure (H) in the Northern Hemisphere. **Draw and describe** what you observe in the space below.

[http://ww2010.atmos.uiuc.edu/(Gh)/wwhlpr/anticyclone\_ani.rxml?hret=/guides/maps/sfc/temp/sfctmpslp.rxml](http://ww2010.atmos.uiuc.edu/%28Gh%29/wwhlpr/anticyclone_ani.rxml?hret=/guides/maps/sfc/temp/sfctmpslp.rxml)

7. What is the definition of a front? [http://ww2010.atmos.uiuc.edu/(Gh)/guides/mtr/af/frnts/home.rxml](http://ww2010.atmos.uiuc.edu/%28Gh%29/guides/mtr/af/frnts/home.rxml)

8. **What is** a cold front? How do we **symbolize it** on a map (draw it)?

[http://ww2010.atmos.uiuc.edu/(Gh)/guides/mtr/af/frnts/cfrnt/def.rxml](http://ww2010.atmos.uiuc.edu/%28Gh%29/guides/mtr/af/frnts/cfrnt/def.rxml)

In the United States, a cold front typically moves from \_\_\_\_\_\_\_\_\_\_\_\_\_\_ to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

10. **Watch** the animation of a cold front and **describe the type of precipitation** associated with cold front movement. [http://ww2010.atmos.uiuc.edu/(Gh)/guides/mtr/af/frnts/cfrnt/prcp.rxml](http://ww2010.atmos.uiuc.edu/%28Gh%29/guides/mtr/af/frnts/cfrnt/prcp.rxml)

11**. What is** a warm front? How do we **symbolize it** on a map (draw it)?

[http://ww2010.atmos.uiuc.edu/(Gh)/guides/mtr/af/frnts/wfrnt/def.rxml](http://ww2010.atmos.uiuc.edu/%28Gh%29/guides/mtr/af/frnts/wfrnt/def.rxml)

Warm fronts generally move from \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

12**. Watch** the animation of a warm front and **describe the type of precipitation** associated with a warm front (you may need to read the bottom paragraph to answer this question)

[http://ww2010.atmos.uiuc.edu/(Gh)/guides/mtr/af/frnts/wfrnt/prcp.rxml](http://ww2010.atmos.uiuc.edu/%28Gh%29/guides/mtr/af/frnts/wfrnt/prcp.rxml)

13**. What is** the “Jet Stream” and at **what altitude** is the jet stream measured?

[http://ww2010.atmos.uiuc.edu/(Gh)/guides/mtr/cyc/upa/jet.rxml](http://ww2010.atmos.uiuc.edu/%28Gh%29/guides/mtr/cyc/upa/jet.rxml)

14. List two things you learned and one think you would like to

learn about forecasting weather.

I learned…..

I want to learn….