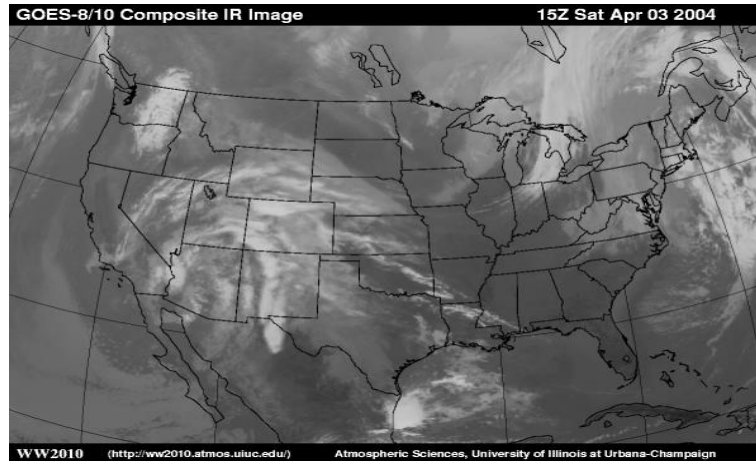


Name \_\_\_\_\_

Hour \_\_\_\_\_

## Forecasting the Weather Worksheet



**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 on the Forecasting the Weather Worksheet.

1. What is an [air mass](#)?
2. Describe the temperature, moisture and air pressure associated with a [Continental Polar air mass](#).
3. Describe the temperature, moisture and air pressure associated with a [Maritime Tropical air mass](#).

4. Describe a [high pressure center](#). What is another name for a center of high pressure?

5. What is a [cyclone](#)? What direction do winds flow in cyclones in the Northern Hemisphere? In the Southern Hemisphere?

6. Watch this [animation](#) on how winds flow around cyclones (pressure lows) and anticyclones (pressure highs) in the Northern Hemisphere. Draw and describe what you observe below.

7. What is the definition of a [front](#)?

8. Individual surface weather stations use a standard format to report data. Review the [weather stations symbols](#) for temperature, weather symbol, dew point, cloud cover, sea level pressure and wind. Draw and label the station symbol in this example.

9. What is a [cold front](#)? Describe the characteristics before, during and after a cold front below.

Definition:

Before	During	After
Winds:	Winds:	Winds:
Temp:	Temp:	Temp:
Clouds:	Clouds:	Clouds:
Pressure:	Pressure:	Pressure:
Precip:	Precip:	Precip:
Visibility:	Visibility:	Visibility:
Dew point:	Dew point:	Dew point:

10. Watch the [animation](#) of a cold front and describe the type of precipitation associated with cold front movement.

11. What is a [warm front](#)? Describe the characteristics before, during and after a cold front below.

Definition:

Before	During	After
Winds:	Winds:	Winds:
Temp:	Temp:	Temp:
Clouds:	Clouds:	Clouds:
Pressure:	Pressure:	Pressure:
Precip:	Precip:	Precip:
Visibility:	Visibility:	Visibility:
Dew point:	Dew point:	Dew point:

12. Watch the [animation of a warm front](#) and describe the type of precipitation associated with a warm front.

13. What is the importance of temperature in the formation of [rain](#), [freezing rain](#), [sleet](#) or [snow](#)? (draw the diagram)

Rain	Freezing Rain	Sleet	Snow

14. What is a [Supercell Storm](#)? What dangerous conditions may develop during supercell storms? What wind and cloud conditions are prevalent in supercell storms?

15. What is the “[Jet Stream](#)” and at what altitude is the jet stream measured?

