Name:_____

Measuring Relative Humidity and Dew Point Temp

Relative humidity and dew point temperature are some of the fundamental variables we measure to better understand the weather. Observing trends in them can tell us if it's going to rain, be sunny, or turn in to one of those hot, muggy days!

Vocabulary

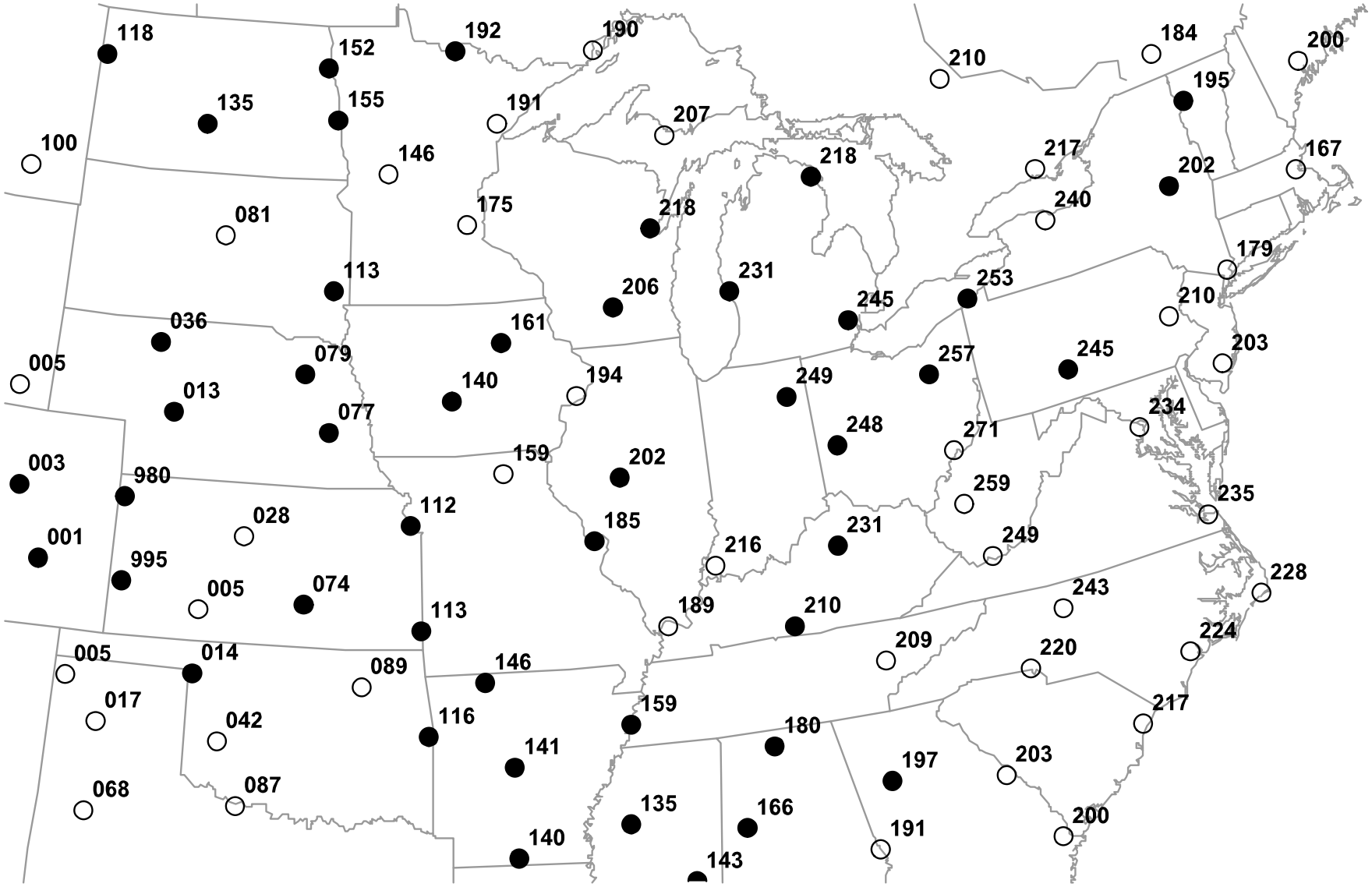
- Dew Point Temperature:
- Relative Humidity:
- Condensation:
- Saturation:
- Psychrometer:

Using the Earth Science Reference Tables, complete the table below.

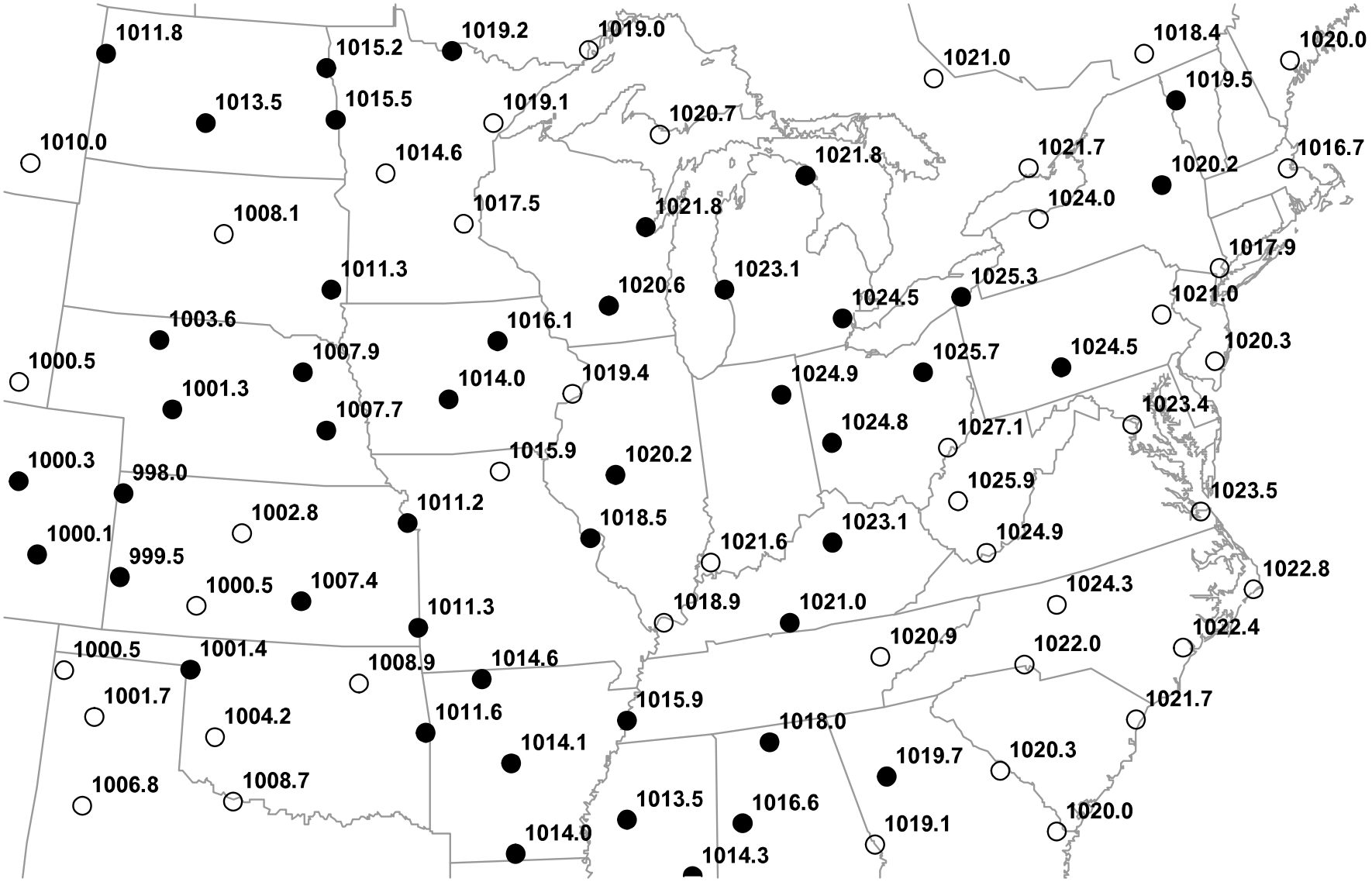
Dry Bulb Temp (°C)	Wet Bulb Temp (°C)	Wet Bulb Depression (°C)	Relative Humidity (%)	Dew Point Temp. (°C)
20	16			
24	14			
13	10			
28			65	
10				-5
	8	2		
	22	4		

Part 2- On The ISOBAR Map- Connect the Isobars as requested on the top of both pages

Draw the following isobars (mb): 1000, 1004, 1008, 1012, 1016, 1020, 1024



Draw the following isobars (mb): 1000, 1004, 1008, 1012, 1016, 1020, 1024



Courtesy of David Babb, Dept. of Meteorology, The Pennsylvania State University.
This content is part of the Certificate of Achievement in Weather Forecasting and M.Ed. in Earth Sciences programs offered by the Penn State World Campus. (link: http://www.worldcampus.psu.edu)

Part 3- Questions

1. Describe the effect that these variables will have on relative humidity:
    - Temperature:
    - Amount of water vapor:
2. If the air is cooled to the dew point temp., what will the relative humidity be?
3. What does it mean if the air is "saturated"?
4. If the relative humidity is 100%, what will the air temp. and the dew point temp. be like?
5. If the relative humidity decreases, what will happen to the dew point temp.?
6. What does Humidity have to do with Air Pressure?
7. How does Air Move and how does that change the amount of moisture in the air?