

## AIR MASS MOVEMENT ACROSS THE STATE OF OKLAHOMA

### STUDENT QUESTIONS SHEET

You should have two maps of Oklahoma. One with temperatures the other with dew point temperatures.

\*\*\* Remember - dewpoint is an indication of the amount of moisture in the air \*\*\*

1. On each map, contour the temperatures every 10 degrees. Use black pencil/pen
2. On the temperature map, circle the region (remember that a “region” is usually larger than 1 or 2 station, rather large areas of space) that contains the warmest temperatures. Use a red pencil/pen. Label this region “A”.
3. On the temperature map, circle the region (remember that a “region” is usually larger than 1 or 2 station, rather large areas of space) that contains the coolest temperatures. Use a blue pencil/pen. Label this region “B”
4. On the dewpoint map, circle the region that contains the highest dewpoint temperature. Use a green pencil/pen.
5. On the dewpoint map, circle the region that contains the lowest dewpoint temperature. Use a brown pencil/pen.

Analysis: Using the maps you prepared, answer the following questions.

1. Looking at the warmest temperatures region A, are the dew points high or low in this region?
2. Looking at the coolest temperatures region B, are the dew points high or low in this region?
3. If you were to describe the regions as (1) warm and dry, or (2) warm and moist, or (3) cool and dry, or (4) cool and moist, how would you describe Region A?

Region B?

4. The Northern Hemisphere can be divided into three “latitudinal” regions:
- (a) the polar regions, between 0 degrees north and 30 degrees north
  - (b) the middle latitudes, between 30 degrees north and 60 degrees north
  - (c) the tropics, between 60 degrees north and 90 degrees north.

Using this information, where do you think the air in Region A came from? Why?

Using this information, where do you think the air in Region B came from? Why?

5. Explain the causes of air to be moist or dry.