WEATHER FORECASTING STUDY GUIDE

AIR MASSES—*look over the worksheet completed in class with the map of air masses of North America, ch 24sec1*

1. Be able to list the four types of air masses---know what the abbreviations stand for.
2. Describe the kind of weather each air mass brings and where they form
3. Be able to identify the full names of the air masses that affect the US (use the map of North America)
4. define: air mass

FRONTS---*REALLY know the chart we completed in class, ch 24 sec 2*

1. be able to draw each of the map symbols for a warm front, cold front, stationary and occluded front and indicate which direction they are moving
2. Explain how each type of front forms and list any special characteristics of each
3. List the types of clouds that would form with each front and the kind of weather the front would bring. Be able to forecast weather based on cloud type and front.
4. define squall line
5. define front

CYCLONES AND ANTICYCLONES—*look over Highs/Lows lab (especially the final chart), notes on storms, hurricane lab background info., tornado lab, ch 24 sec 2*

1. Compare/contrast high pressure (anticyclones)and low pressure (cyclones) systems in terms of vertical air movement, wind direction around the system (ie-clockwise), type of weather (clear/cloudy), and location (middle of an air mass or along a front*)*.
2. Describe what the movement around cyclones and anticyclones would look like in the southern hemisphere
3. describe how cyclones form and list their characteristics
4. Be able to explain how and when a tornado forms and its relationship to the position of the polar front
5. Describe how lightning and thunder form
6. Explain what a hurricane is, how/when it forms, what causes the most damage during a hurricane, and where the most damaging winds would be.
7. Explain the difference between a hurricane watch and a warning
8. list reasons why lightning deaths and tornado deaths occur at different times

WEATHER MAPS—*look over isotherm map and questions, station model sheets, forecasting lab and worksheets, ch 24 sec4*

1. Be able to draw/interpret weather map symbols (station models) for percent cloudiness, wind speed, wind direction, temperature, dew point and pressure
2. Be able to look at a weather map and make a prediction about the future weather of an area based on the positions of highs/lows, fronts, air masses, and the west to east movement of our weather.
3. Be able to identify the location of fronts, air masses, high and low pressure areas on isotherm and isobar maps. Be able to draw isotherms for given temperatures.
4. define: isotherm and isobar