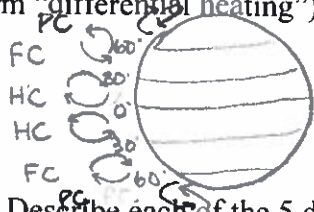


1. Illustrate a Hadley, Ferrel, and Polar Cell. What drives these convection currents? (include & explain the term "differential heating")



The Sun hits Earth more directly ($\sim 90^\circ$) at the equator than it does at the poles ($sm \angle$). This causes the temps at eq. to be greater than at the poles. The diff. heating of Earth's surface, along w/ Coriolis effect, cause these cells.

2. Describe each of the 5 different air masses.

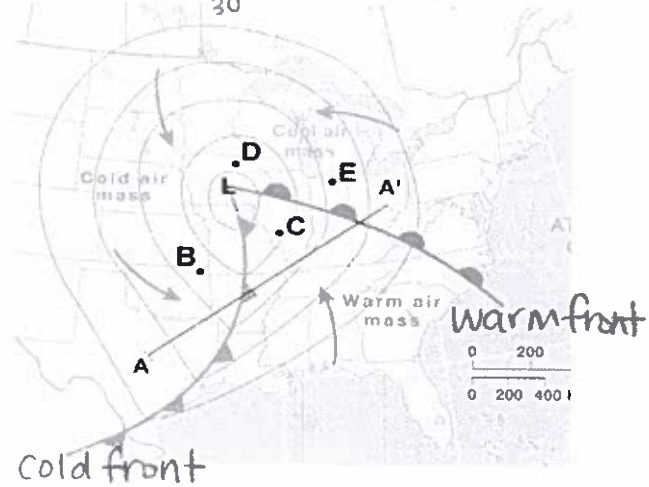
- mT - wet, warm
- mP - wet, cold
- cT - dry, warm
- cP - dry, cold
- A - very cold air from poles

3. Explain, in your own words, how air masses move (include the terms convection, Coriolis effect, and pressure). Air masses move because of global wind patterns. The wind patterns are caused by diff heating & the Coriolis effect. Wind, in general, is caused by air moving from $(H) \rightarrow (L)$



For the following questions, reference the map:

4. For each of the locations B - E, describe the current temperature, wind direction, and level of precipitation, as well as the changes you would expect to experience over the next several hours at that location.



B - Current - cold, thunderstorms, NW winds

Future - cold, N winds, leftover rain?

C - Current - warm, S winds, light rain?

Future - cold, W winds, thunderstorms

D - Current - cold, E winds

Future - warmer, SE wind, light precip/clouds

E - Current - cold, E winds

Future - warmer, SE winds, light precip/clouds

5. If you were to walk the path from A to A', what changes would you experience in temperature, precipitation, and wind direction?

