word list: capacity, dew, dew point, drizzle, hail, rain, relative humidity, sleet, snow

Key

Precipitation 'Notes'

(6) **Rain:** 1 million cloud droplets join together by condensing around condensation nuclei (salt or dust.)

(7) **Drizzle:** fine rain that falls slowly.

(9) **Hail:** forms only in <u>thunderclouds</u> (cumulonimbus); begins as a small frozen particle and grows by collecting liquid cloud droplets that freeze onto it. It circulates in large convection currents inside the cloud and grows larger on each circulation. Finally, when the convection currents cannot suspend it in the cloud any longer, the hail stone will fall to earth. If cut open, the hail stone will look like an onion with many concentric growth layers surrounding the original frozen particle. Hail stones may grow as large as a baseball!

(8) **Snow:** Usually six-sided crystals. Low temperatures result in fine ice needles; warmer temperatures cause snowflakes to melt and clump together as sticky clusters or to fall as rain.

(10) **Sleet:** (ice pellets) Warm rain clouds drop rain through freezing lower temperatures that turns the rain into pellets of clear ice. (temp. inversion situation)

(4) **Dew:** Forms on a cold surface when the surface temperature falls below the dew point of the air touching it, but not below 0 degrees Celsius, (if below zero, frost will form.)

(5) Frost

(3) **dew point:** the temperature at which water vapour reaches its saturation level in the atmosphere and condenses into liquid water droplets. When the temperature of the air reaches the dew point, dew will form. <u>Frost</u> will form if the temperature drops <u>below</u> 0 degrees Celsius. Dew or frost forms on the ground when the ground cools the overlying air below the dew point.

(1) **capacity:** the capacity of air for holding water vapor depends on the temp. of the air. As the temp. increases, the amount of water vapour that the air can hold increases. Therefore, its capacity for holding water vapour increases.

(2) **relative humidity:** compares the amount of water vapour in the air, with the the air's water vapour capacity at that temperature. (Remember that the capacity of air to hold water vapour depends on the air's temp.) Saturated air has a relative humidity of 100%.

Homework: Read Ch 3B, and think about what you've learned this unit, to explain why we have the weather we do in the lower mainland I.E. how does our topography, etc. affect our weather?