

Aim: How do clouds form?

Clouds - Tiny droplets of water (ice crystals).

too small to fall through atmosphere + condensation nuclei

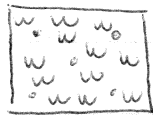
Condensation Nuclei - Tiny particles of dust, smog, that water vapor condenses onto.

Evaporation - liquid to gas. Needs heat + wind. A cooling process.

### Cloud Formation Ingredients

① Evaporation = puts water into air

② Air Rises b/c it is less dense



warm Air

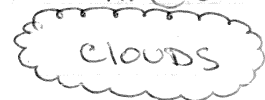
lots of space for  
water vapor  
to fill in

③ Rising Air Cools → As it rises it contracts, squeezing molecules closer together →

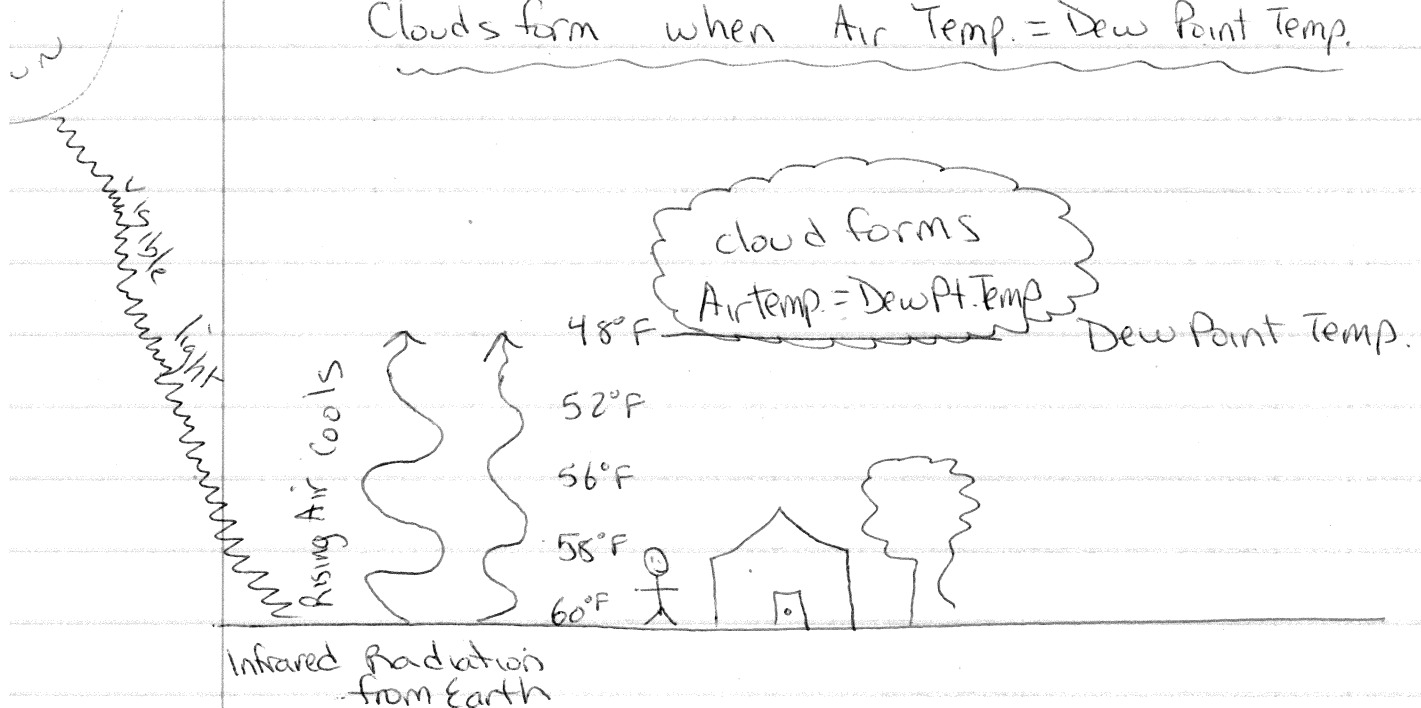


④ Air cools to dew point temp.; condensation occurs and clouds form!

100% R.H. Air @ Dew Point



Clouds form when Air Temp. = Dew Point Temp.



CLOUD DEMO

Clouds also form by... OROGRAPHIC LIFTING

