

DATA

D_{H_2O}

Schol H_2O

$D_{H_2O \text{ with}}$

Cornstarch

$Cu(NO_3)_2$

$NaCl$

$CaCl_2$

NaCl vs $CaCl_2$

"Equal" amount

Oct 20-7:31 AM

Chap 5

Thermo dynamics

HEAT

motion

change

Endothermic

heat is absorbed

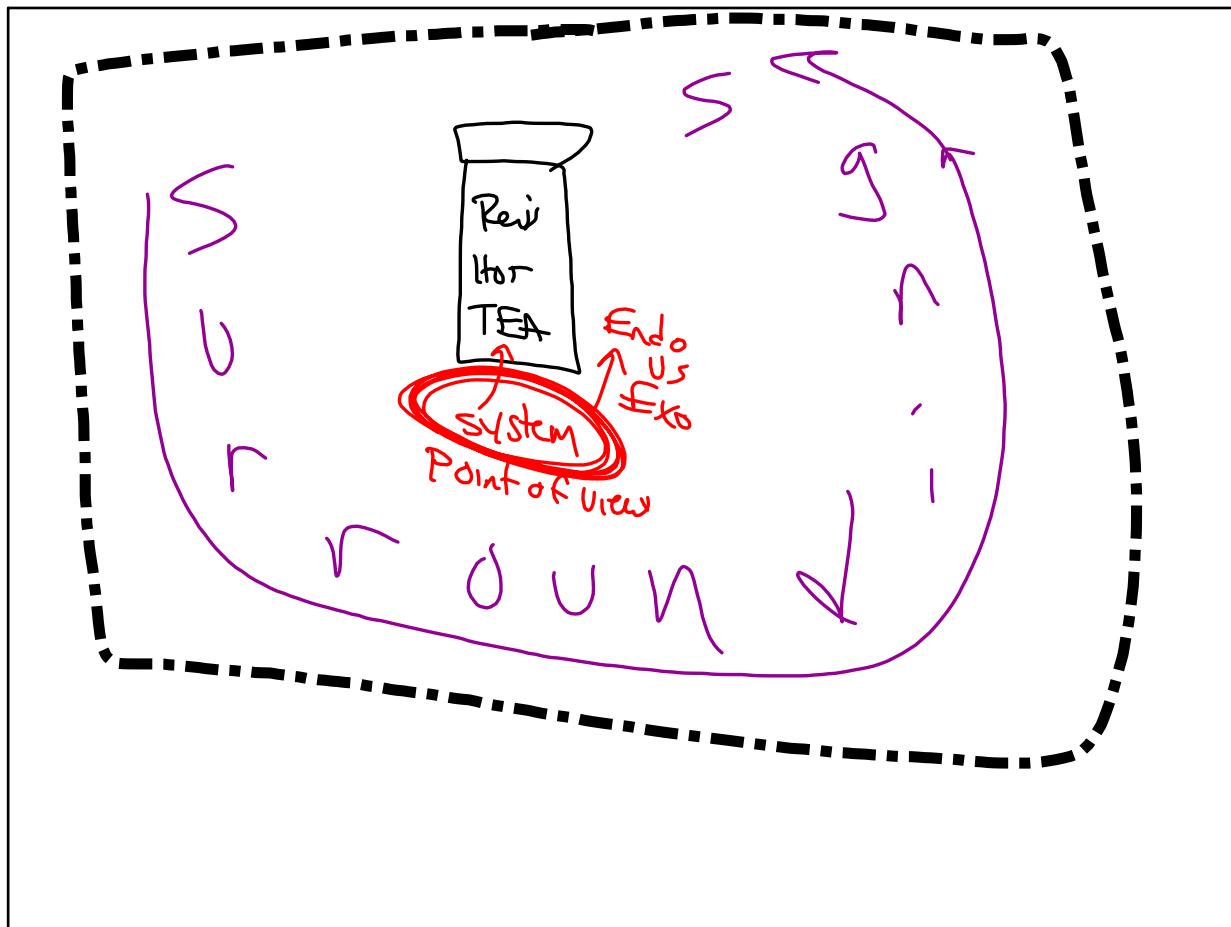
Heat "Enters"

Exothermic

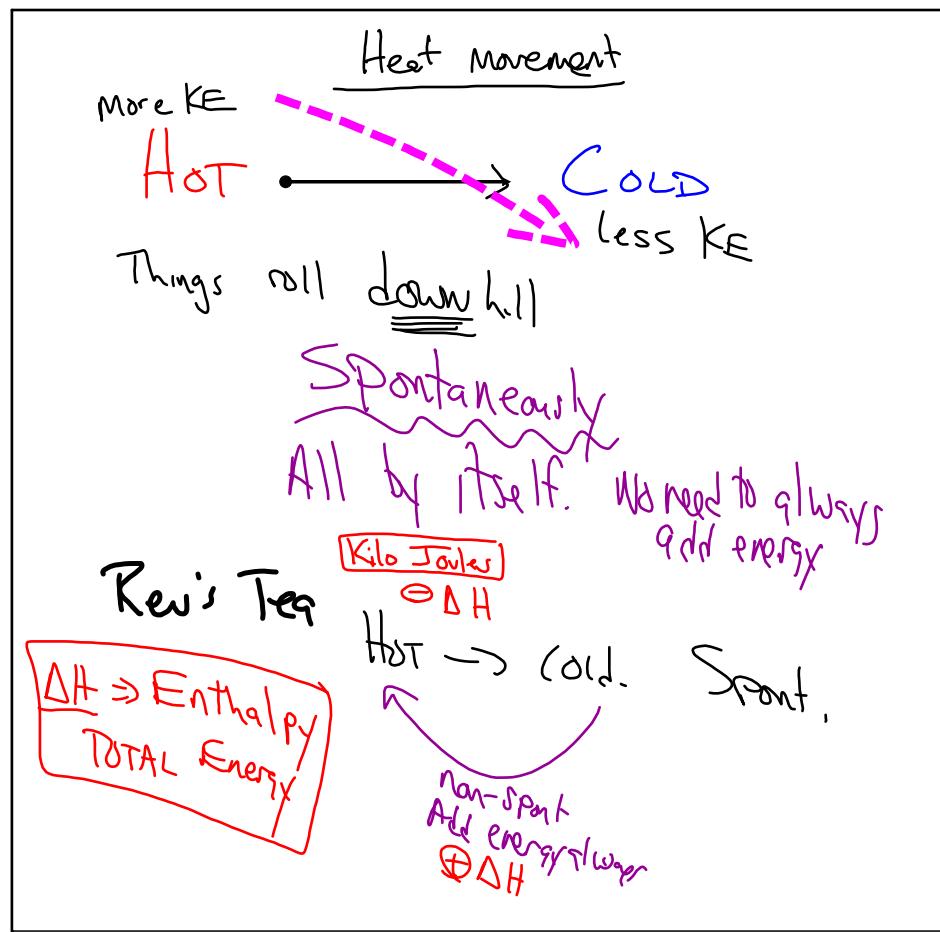
heat is released

HEAT Exits

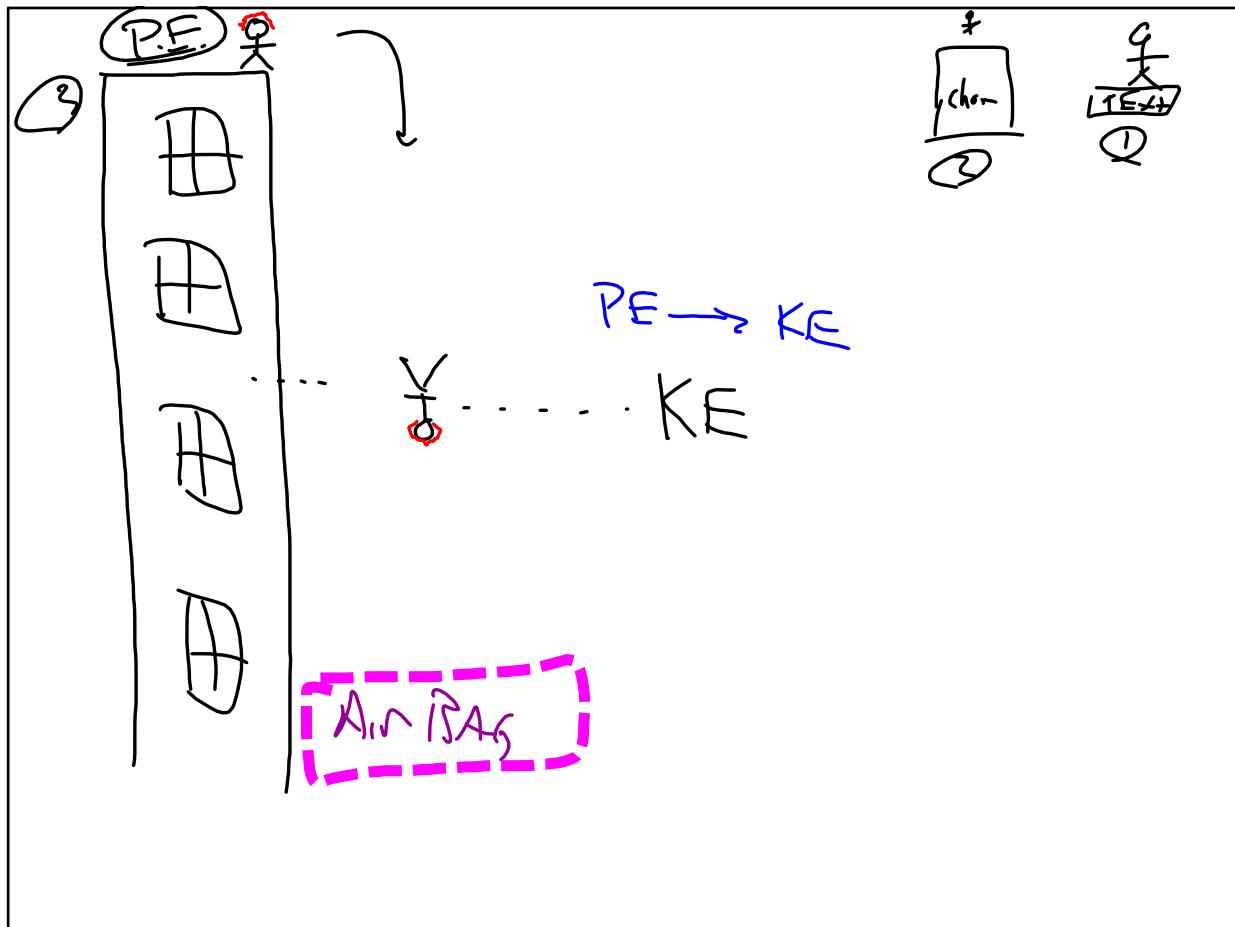
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Oct 20-8:26 AM



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$$\text{PE} = m * g * h$$

$$J = \frac{Kg}{1} * \frac{m}{\text{Sec}^2} * \frac{m}{1}$$

$$KE = \frac{1}{2} m v^2$$

$$J = Kg * \left(\frac{m}{\text{Sec}}\right)^2$$

$$J = \frac{Kg * m^2}{\text{Sec}^2}$$

$$J = \frac{Kg * m^2}{\text{Sec}^2}$$

$(\text{calorie} = 4,184 J)$

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3 LAWS OF Thermodynamics

① Heat \leftrightarrow Work.

$$W = f \times d$$

Force * distance

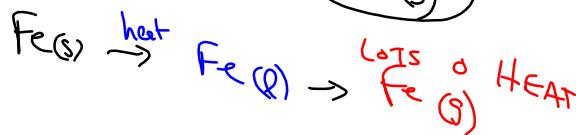
② Heat moves SPONTANEOUSLY from HOT \rightarrow COLD

④ Radiation - Energy transmitted in waves
Sun \rightarrow Earth

⑤ Conduction - Contact \rightarrow Part.

⑥ Convection - Air currents
(home oven)

③ No energy for an element to be in its elemental state.

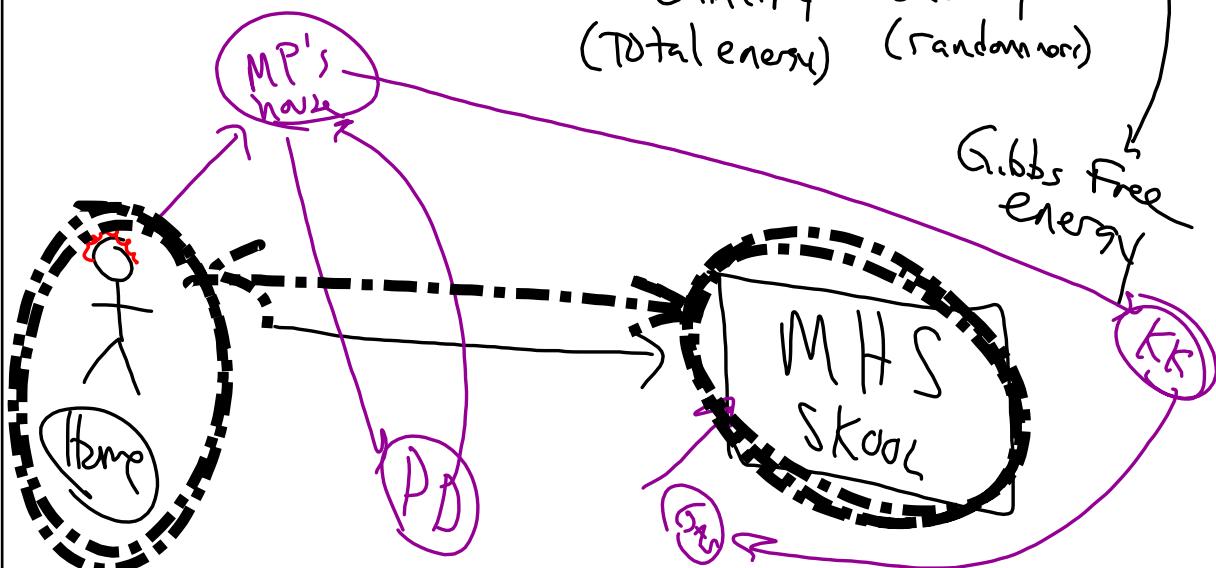


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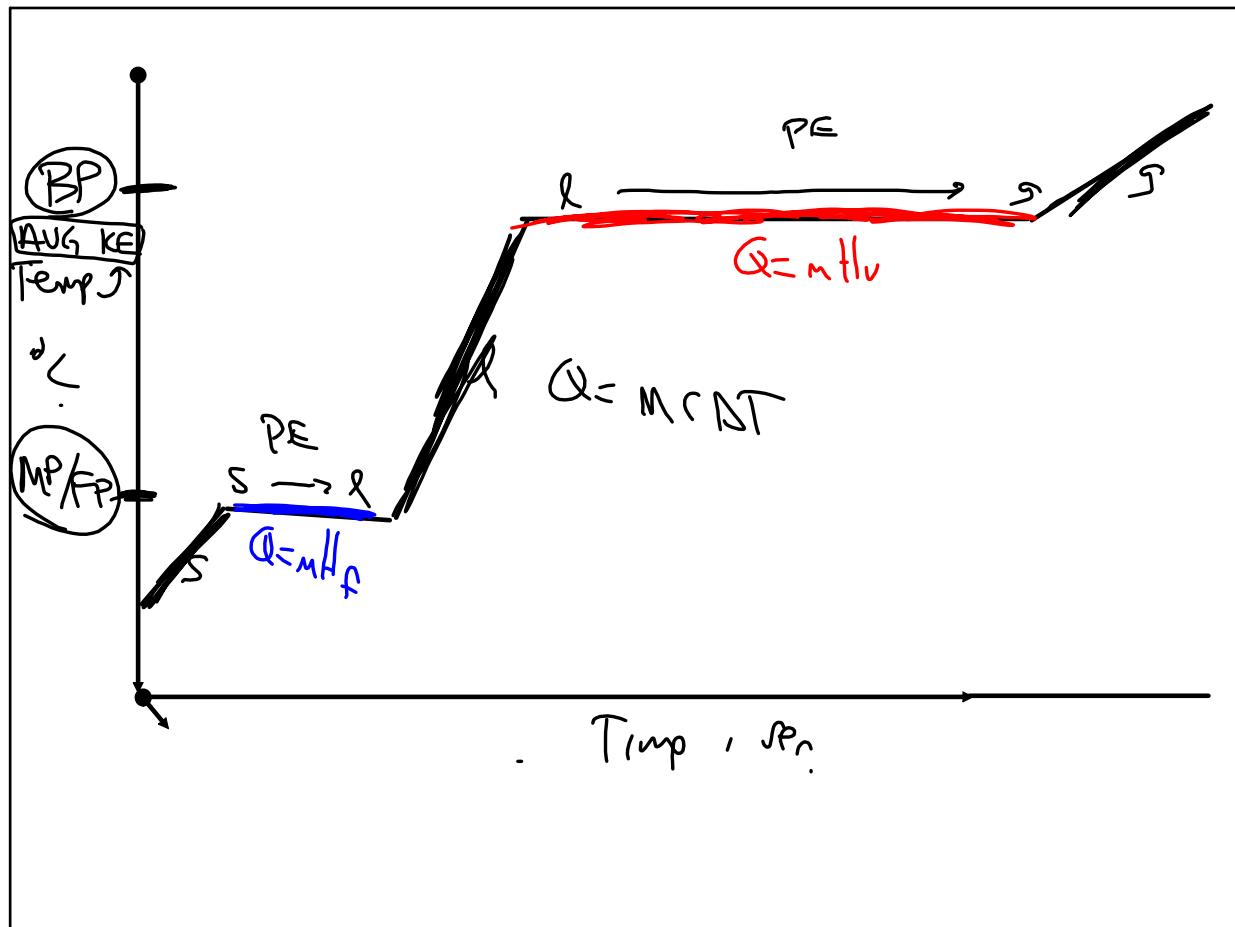
State function $\Delta H, \Delta S, \Delta G$

enthalpy (Total energy) entropy (randomness)

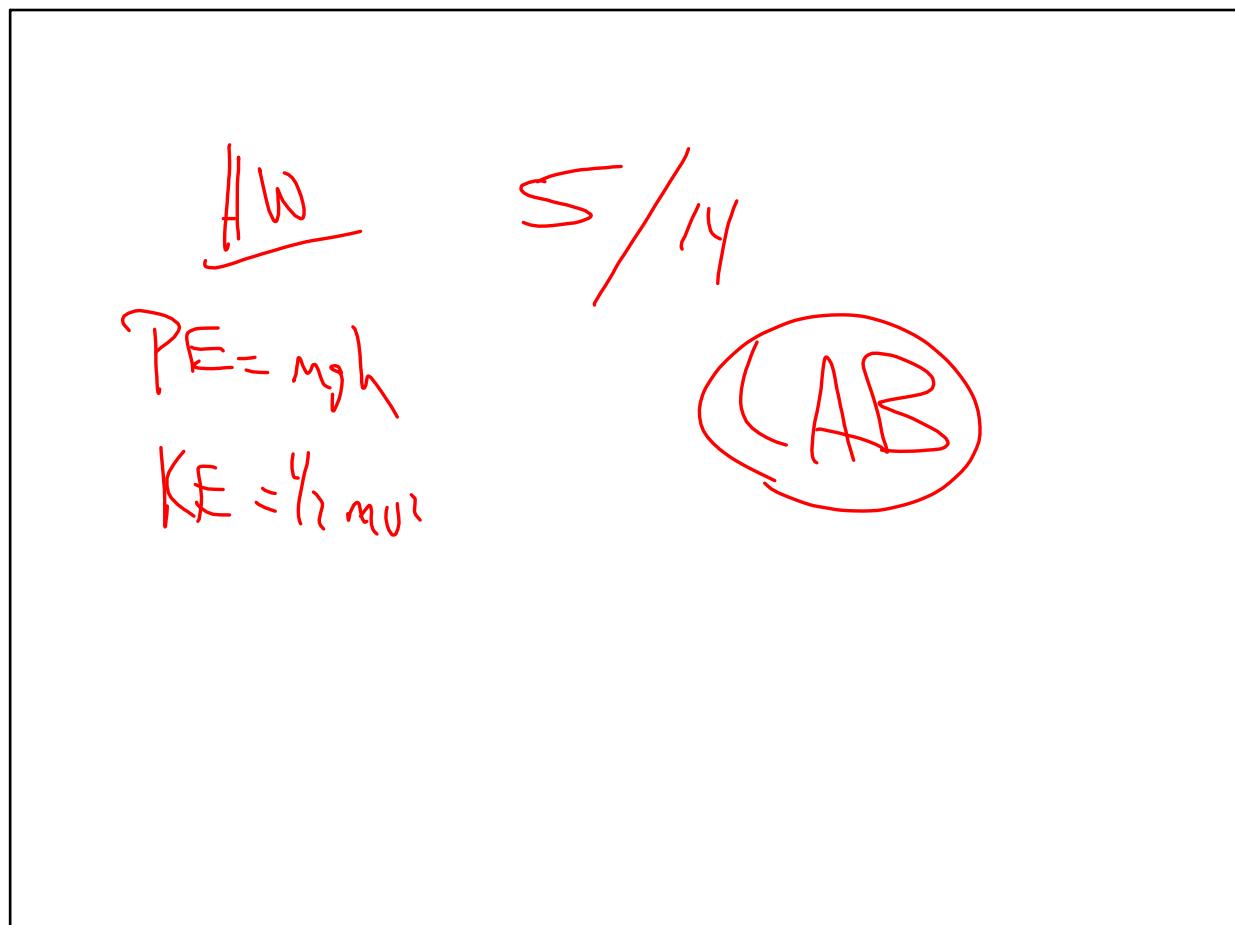
Gibbs free energy



Oct 20-9:22 AM



Oct 20-9:27 AM



Oct 20-9:31 AM