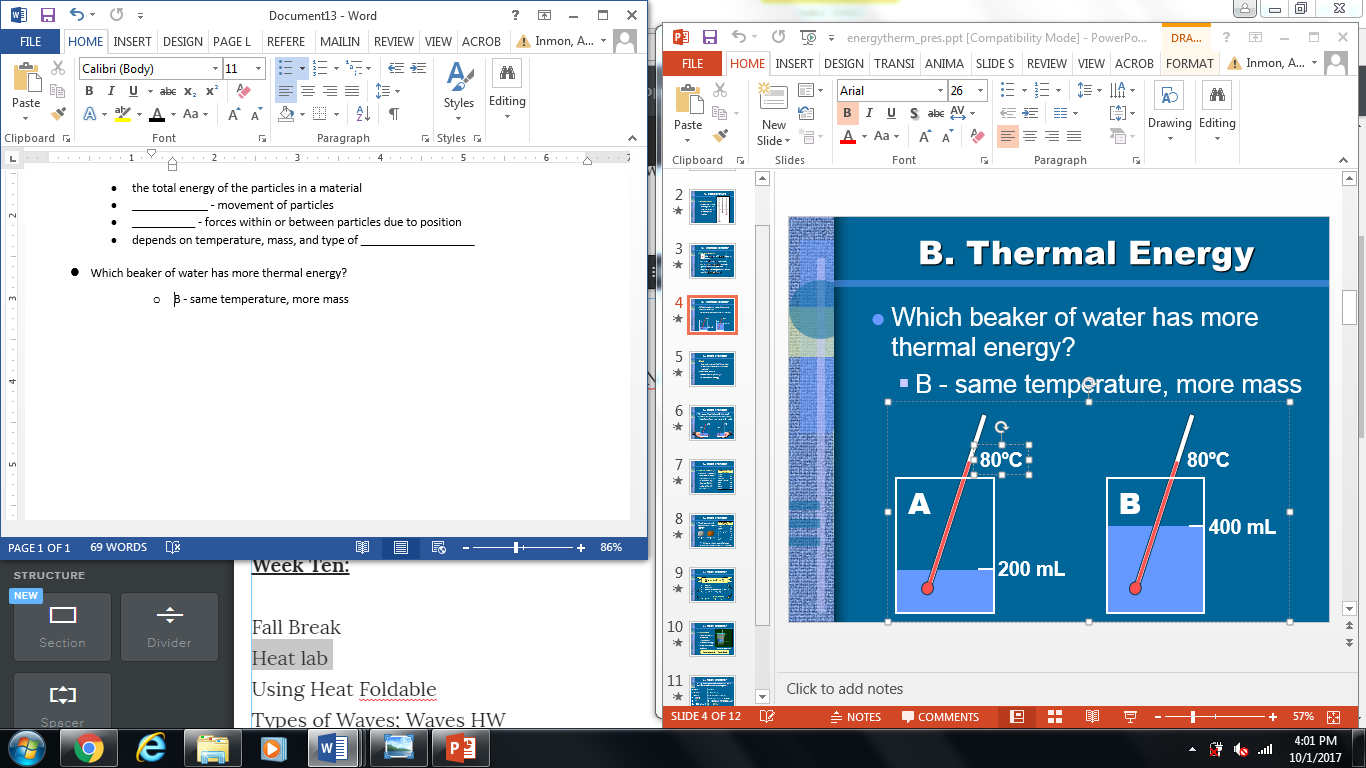
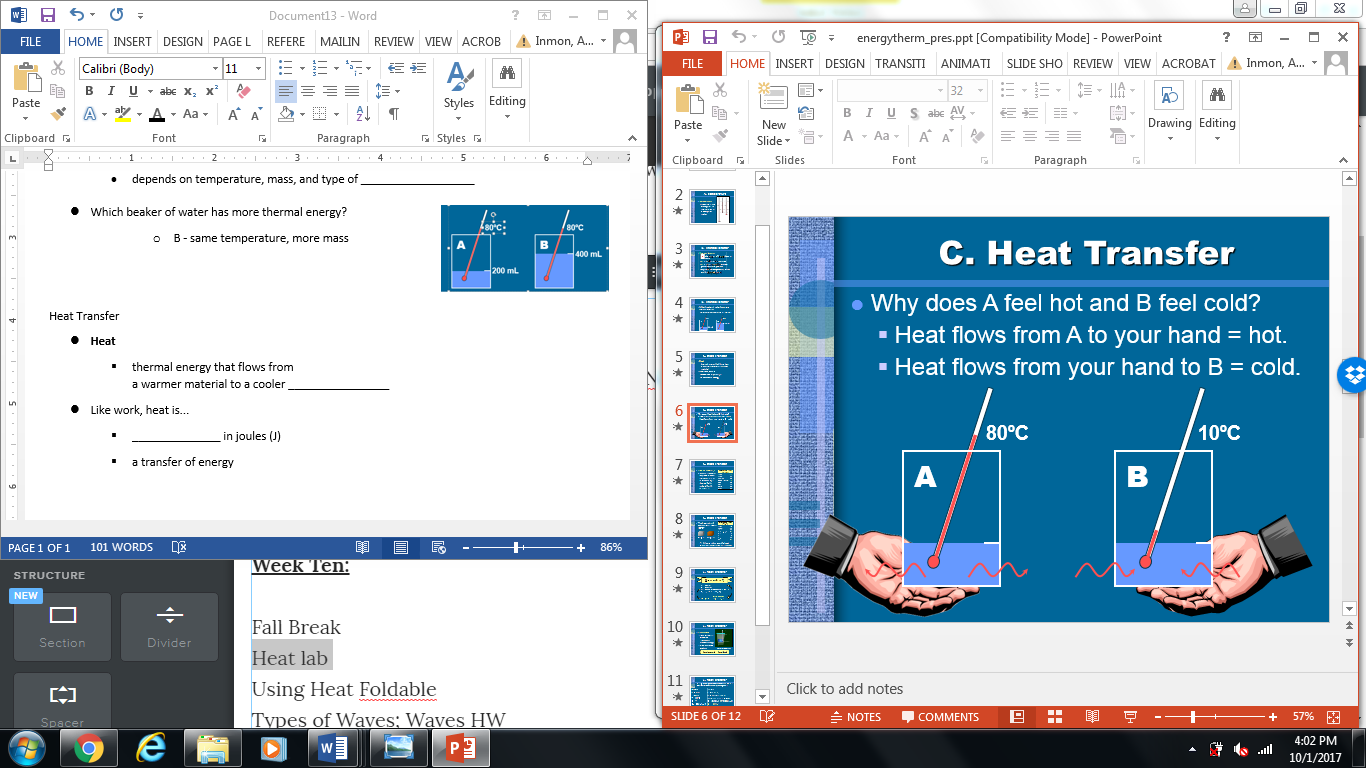
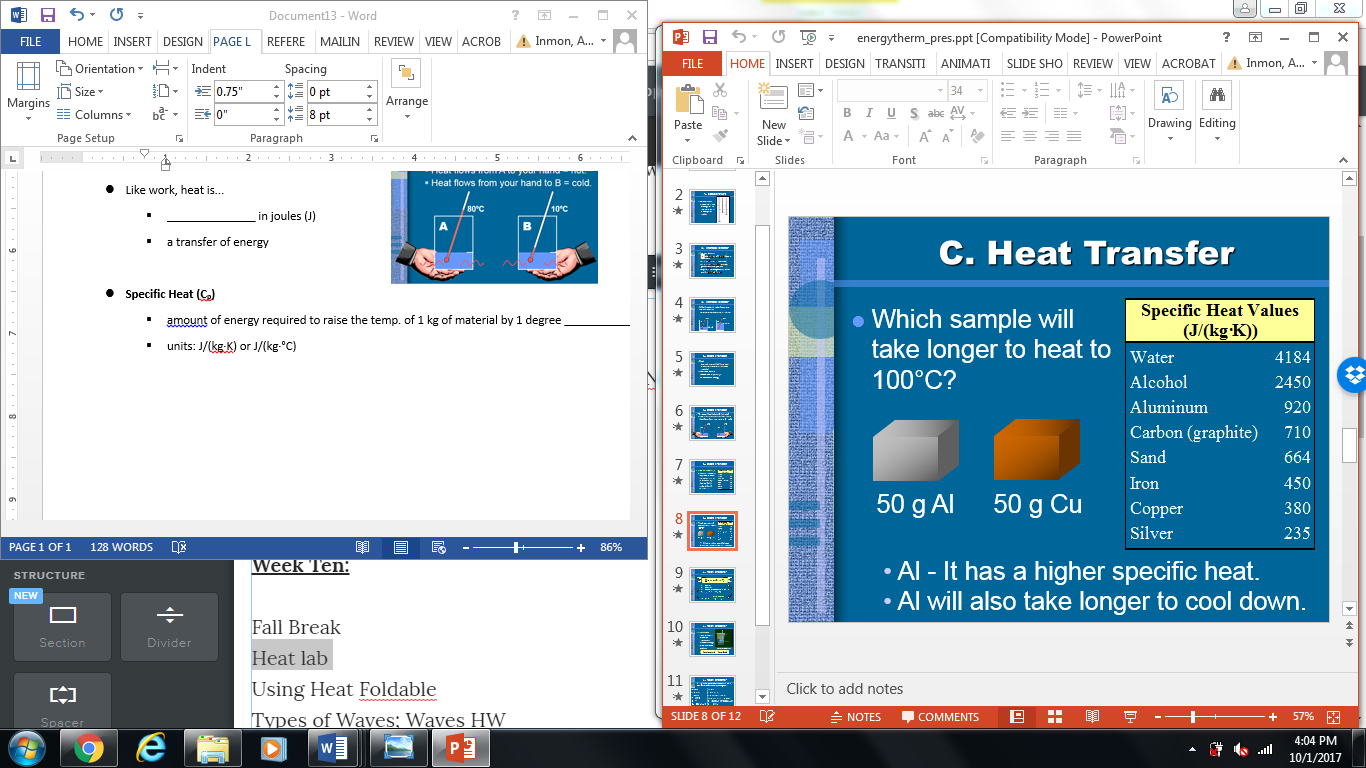
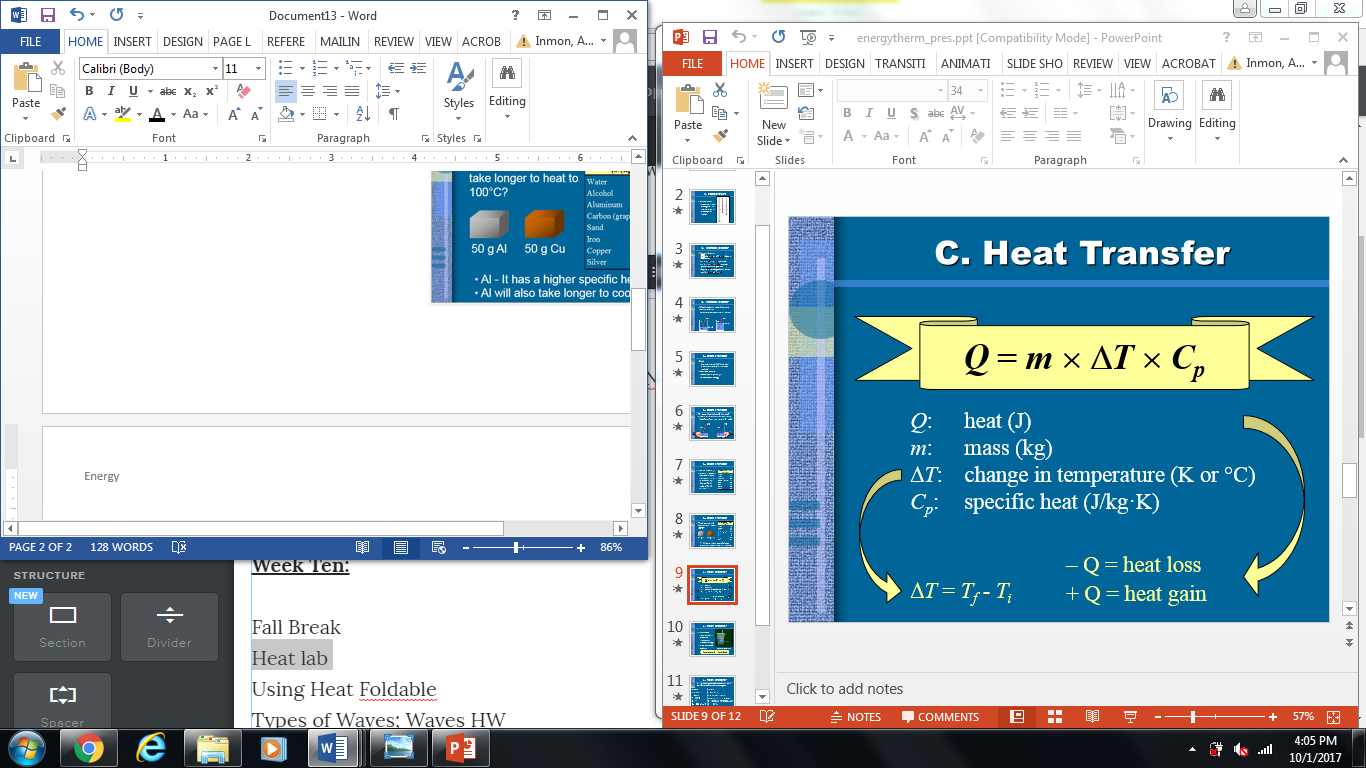
Thermal Energy

* **Temperature**
  + measure of the average KE of the particles in a sample of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* **Thermal Energy**
* the total energy of the particles in a material
* **\_\_\_\_\_\_\_\_\_\_\_\_** - movement of particles
* **\_\_\_\_\_\_\_\_\_\_** - forces within or between particles due to position
* depends on temperature, mass, and type of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Which beaker of water has more thermal energy?
  + B - same temperature, more mass

Heat Transfer

* **Heat**
  + thermal energy that flows from   
    a warmer material to a cooler \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Like work, heat is...
  + \_\_\_\_\_\_\_\_\_\_\_\_\_\_ in joules (J)
  + a transfer of energy
* **Specific Heat (Cp)**
  + amount of energy required to raise the temp. of 1 kg of material by 1 degree \_\_\_\_\_\_\_\_\_\_\_
  + units: J/(kg·K) or J/(kg·°C)



* **Calorimeter**
  + device used to measure changes in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + in an insulated system

***heat gained = heat \_\_\_\_\_***

