

Chemistry CP

Name: _____

Homework: Thermochemistry

Section: _____

Assignment	Due Date
1. Complete minilab report for <i>Effect of a Solute on Freezing Point</i>	Tuesday, 4/9
2. Complete the heating curves tutorial under chapter 5 http://www.wwnorton.com/college/chemistry/gilbert2/chemtours.asp	Wednesday, 4/10
3. Handout: Heat Calculations	
4. Finish handout: Energy in Changes of State, Level 1	Thursday, 4/11
5. Extra credit opportunity: take home minilab (due no later than 4/22)	
6. Work on graphic organizer/google form?	Friday, 4/12
7. Finish handout: Thermochemical equations	Tuesday, 4/23
8. Work on nutrition project	
9. Handout: Hess' Law Level 1	Wednesday, 4/24
10. Calculations from Hess' Law Lab	Thursday, 4/25
11. Study for FFF#15	Friday, 4/26
12. Prepare summary card	
13. Finish nutrition project	Monday, 4/29
14. Finish conclusion from lab, complete minilab handout	Tuesday, 4/30

Dates to Remember:

FFF#15 Friday, 4/26

Nutrition project due Monday, 4/29

Some Useful Websites

<http://chemsite.lsrhs.net/AtomsInMotion/HeatVsTemp.html> Heat vs. temperature

<http://www.physicstutorials.org/home/heat-temperature-and-thermal-expansion/heat-and-heat-vs-temperature> Heat, temperature, specific heat

<http://www.kentchemistry.com/links/Energy/SpecificHeat.htm>

<http://chemed.chem.wisc.edu/chempaths/GenChem-Textbook/Thermochemical-Equations-872.html>

<http://chemistry.about.com/od/physicalchemistrythermo/a/thermochemlaws.htm>

<http://www.kentchemistry.com/links/Matter/HeatingCurve.htm>

<http://www.sciencegeek.net/Chemistry/taters/phasediagrams2.htm> Interactive practice with heating/cooling curves

<http://www.kentchemistry.com/links/Energy/ComplexCalProblems.htm> multistep calculations

<http://hyperphysics.phy-astr.gsu.edu/hbase/therm/entrop.html> entropy discussion

<http://www.entropylaw.com/> An advanced, thorough treatment of entropy

<http://www.utc.edu/Faculty/Gretchen-Potts/chemistryhelp/hess.htm> Hess' Law

http://s-owl.cengage.com/ebooks/vining_owlbook_prototype/ebook/ch5/Sect5-5-a.html Hess' Law

After studying this unit, you should be able to:

- Distinguish between temperature and heat.
- Explain the heat capacity of objects and express it in standard units of heat.
- Describe heat changes in terms of a system and its surroundings.
- Use specific heat capacity to calculate the heat changes that occur in chemical and physical properties.
- Construct equations that show the heat changes for chemical and physical processes.
- Describe in words and in diagrams the heat changes that occur in melting, freezing, boiling, and condensing.
- Apply Hess' Law of heat summation to find heat changes for chemical and physical processes.
- Show how changes in entropy relate to a change of state, a change in temperature, and a change in the number of product particles compared with reactant particles.
- Describe changes in entropy for chemical and physical changes