

NAME:

HONORS CHEMISTRY

SECTION:

Energy Assignment Sheet

Assignment	Due Date
1. Read pp. 289-292 (sections 10.1-10.3)	Monday, 1/6
2. §Make a concept map based on the key vocabulary in the reading	
3. §Complete p. 317 #1-14 in textbook	
4. *Google Classroom—Quizizz assignment	Tuesday, 1/7
5. §Handout	Wednesday, 1/8
6. §finish lab handout for Heat of Fusion of Ice minilab (data, questions)	Thursday, 1/9
7. §Complete p. 319 #45-48	Friday, 1/10
8. §Read sections 10.8 and 10.10 in textbook; write a 5-8 sentence summary	
9. §Read section 10.4, Complete p. 317 #15-20, p. 320 #79	Monday, 1/13
10. §Handout	Tuesday, 1/14
11. §Complete pp. 319-320 #59-65, 80, 82	
12. Start work on Energy unit alternative assessment	Wednesday, 1/15
13.	
14. *Hess' Law prelab questions (in Google Classroom)	Thursday 1/16
15. Work on Energy unit alternative assessment	
16.	
17. §Energy unit alternative assessment	Wednesday, 1/22
13. §Hess' Law Minilab (data, questions, conclusion)	Friday, 1/24

Dates to Remember:

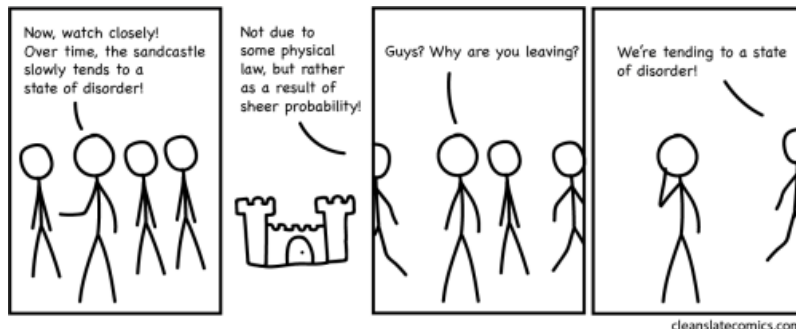
Energy Unit Alternative Assessment Wednesday, 1/22

§may be checked or collected in class

*may be checked online

After studying chapter 10 you should be able to:

- State the general properties of energy.
- Define and give examples of state functions.
- Compare and contrast temperature and heat.
- Compare and contrast endothermic and exothermic processes.
- Describe in words and diagrams the heat changes that occur in melting, freezing, boiling, and condensing, and calculate the heat changes involved.
- Calculate the heat changes that occur in chemical and physical processes.
- Apply Hess' Law of heat summation to find heat changes for chemical and physical properties.
- State two reasons why reactions occur.
- State the reasons that enthalpy changes occur in chemical reactions.
- Calculate enthalpies of formation and use them to calculate enthalpies of reaction.
- Explain how the quality of energy changes as it is used
- Describe and give examples of changes in entropy.
- Calculate Gibb's free energies, and relate Gibb's free energy to the spontaneity of reactions.



Entropy [OC]

Some Useful Websites:

<http://hyperphysics.phy-astr.gsu.edu/hbase/thermo/spht.html> specific heat and energy calculations

<http://www.chemteam.info/Thermochem/Determine-Specific-Heat.html>

<http://www.iun.edu/~cpanhd/C101webnotes/matter-and-energy/specificheat.html> What is specific heat?

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

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

<http://www.ck12.org/chemistry/Heating-and-Cooling-Curves/lesson/Heating-and-Cooling-Curves/>

<http://www.chem.wisc.edu/deptfiles/genchem/netorial/modules/thermodynamics/chemical/chemical3.htm>

Thermochemical equations

<http://science.widener.edu/svb/tutorial/thermoequationscsn7.html> Thermochemical equations practice

<https://www.chemteam.info/Thermochem/HessLawIntro1a.html>

<http://www.chem.wisc.edu/deptfiles/genchem/netorial/modules/thermodynamics/chemical/chemical5.htm>

Enthalpies of formation

<http://www.chemteam.info/Thermochem/HessLawIntro2.html> Enthalpies of formation

https://chem.libretexts.org/Core/Physical_and_Theoretical_Chemistry/Thermodynamics/State_Functions/Enthalpy/Standard_Enthalpy_Of_Formation

<https://www.youtube.com/watch?v=870y6GUKbwc> Entropy introduction

<http://www.bioinfo.org.cn/book/biochemistry/chapt13/sim1.htm> Bioenergetics

