



## Thermochemistry Review Key

1. See notes.
2. A closed system will become more disordered over time.
3. Temperature is the average kinetic energy. Heat is the transfer of energy between substances.
4. High energy to low energy (or hot to cold). Endothermic and exothermic I will allow you to figure out.
5. 410000 cal; 1713800 J
6. 0.8360 kJ
7. Heating 1 L of water by 1°C takes more heat/energy than heating 1 mL of water by 1°C. This shows that the amount of substance determines the heat capacity.
8. 5.85 J/g°C
9. 54.5°C
10. -21.9 kJ
11. -133.5 kJ
12. The heat content of a substance or reaction. Think about what this means!
13. See notes and lab.
14. Know the enthalpy changes associated with changes of state.
15. What did you do in the lab? How is it different than  $\Delta H_{rxn}$ ?
16. -1.518 kJ
17. Think about the definition and the steps that you follow to perform Hess's law.
18. -890 kJ
19. -790.8 kJ; -395.4 kJ/mol