Chapter 6

Forms of energy and their interconversion
  Know and use the end of chapter key terms
  Define and use the terms system, surroundings, internal energy, kinetic energy and potential energy
  Rationalize and compute energy changes of a system and assign the appropriate sign (+ or '-') for the change
  Know the relationship of heat and work to energy change
  Do calculations involving heat and work, including PV work
  Know and convert energy units
  Distinguish state functions from those that are not
  State the law of conservation of energy

Enthalpy: heats of reaction and chemical change
  Define enthalpy and enthalpy change and write appropriate equations for calculating enthalpy change
  Distinguish exothermic and endothermic changes and relate to heats of chemical reaction
  Relate bond energies to heats of reaction

Calorimetry: laboratory measurement of heats of reaction
  Define and use specific heat capacities in heat change calculations
  Know how heats of reaction are measured
  Know the construction and characteristics of a calorimeter

Stoichiometry of thermochemical equations
  Use reaction heats in stiochiometry calculations

Hess’s law of heat summation
  Know Hess’s law and apply to multiple reaction enthalpy calculations
Standard heats of reaction
   Use standard heats of formation to calculate DH for given chemical reactions