

10th Grade Chemistry

2nd Trimester Exam Topics

Chapter 6

Redox reactions
ion-electron method

Chapter 7

enthalpy change (ΔH);
heat of formation, heat of combustion,
Hess's Law,
joules, calories, Calories,
endothermic vs. exothermic reactions,
enthalpy diagram
calorimetry

Chapter 8

Hydrogen Spectrum problem (and how it was solved)
Quantized nature of energy in an atom
Periodic Table trends - atomic radius, ionization energy, electron affinity

Chapter 9

Lewis dot structures,
octet rule,
covalent bonding,
polar and nonpolar covalent bonds,
bond order/length/energy,
electronegativity,
isomers,
families of organic compounds (alkanes, alkenes, alkynes, alcohols, aldehydes, ketones, organic acids) - their names, formulas, and structures

Chapter 12

inter- vs. intra-molecular forces,
hydrogen bonding,
other dipole-dipole forces,
London forces (3 factors),
viscosity,
surface tension,
boiling point definitions,
phase changes,
phase diagrams,
heats of vaporization/sublimation/fusion,
Le Chatelier's Principle