Review for final exam for first semester
January 2018
Chemistry
Western International High School

Chapter1: The Science of Chemistry
Page 5: Define chemical reaction
Page 8: Define reactants, products.
Page 16: What is the formula for density.
Page 26: Define homogenous mixture. Give an example
Page 26: Define heterogenous mixture. Give an example.
Page 26: Table 26.

Chapter 2: Matter and Energy
Page: 39: Define chemical change, physical change.
Page 40: State the law of conservation of energy.
Page 52: State the law of conservation of mass.

Chapter 3: Atoms and Moles
Page 67: State the Law of conservation of mass.
Page 96: Define electronic configuration.
Page 101: Define mole, molar mass, Avogadro's number
Page 102: Sample Problem D
Page 103: Sample Problem E
Remember the nucleus of the atom contains protons and neutrons. Electrons clouds are around the nucleus.

Chapter 4: The Periodic Table
Page 126: Define halogens
Page 127: Define noble gases.
Page 135: What happens to the atomic radius as you move down a group?
Page 136: What happens to the atomic radius as you move across a period?
Page 137: What happens to the electronegativity as you move down a group?
Page 138: What happens to the electronegativity as you move across a period?

Chapter 5: Ions and Ionic Compounds
Page 161: Define ion, cation, anion.
Page 171; Table 1.
Page 179: Sample Problem A.
Page 180: Practice Problem 1.

Chapter 6: Covalent Compounds
Page 191: Define covalent bond.
Page 202: Sample Problem A
Page 203: Sample Problem B
Page 205: Sample Problem C
Page 207: Table 5.

Chapter 7: The Mole and Chemical Composition
Define Avogadro's number. What is this number?
Page 228: Sample Problem A
Page 229: Sample Problem B
Page 231: Sample Problem C
Page 232: Sample Problem D
Page 239: Sample Problem F. Practice Problem a, b, c.

Chapter 8: Chemical Equations and Reactions
Page 261: Table 1.
Page 265: Table 2.
Page 269: Sample Problem A. Practice Problem 1, 2, 3.
Page 271: Sample Problem B
Page 273: Sample Problem C
Page 285: Practice Problem 8
Page 286: Write the ionic equation.
Page 287: Write the ionic equation.
Page 289: Practice Problems 6 (a, b)

Chapter 9: Stoichiometry
Page 304: Sample Problem A
Page 307: Sample Problem B
Page 309: Sample Problem C

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Page 310: Sample Problem D
Page 313: Define limiting reactant, excess reactant.
Page 314: Sample Problem E
Page 317: Sample Problem F
Page 318: Sample Problem G
Page 322: Sample Problem H
Page 324: Sample Problem I
Page 327: Sample Problem J

Chapter 17: Oxidation, Reduction, and Electrochemistry
Define: oxidation, reduction, oxidizing agent, reducing agent
Page 610: Sample Problem B

Chapter 12: Gases
Page 424: Write the equation for Boyle's law.
Page 425: Sample Problem B
Page 427: Write the equation for Charle's law.
Page 428: Sample Problem C
Page 430: Write the equation for Gay-Lussac's law. Sample Problem D.
Page 434: Write the equation for ideal gas law.
Page 453: Sample Problem E

Chapter 10: Causes of Change
Page 346: Write the equation for molar enthalpy change. Sample Problem B.
Page 347: Sample Problem C
Page 356: Sample Problem E
Page 358: Define entropy
Page 361: Sample Problem F
Page 362: Write the reaction for Gibbs energy
Page 363: Write the equation for Hess's law for calculating Gibbs energy
Page 364: Sample Problem G
Page 365: Sample Problem H